

national

# SAFETY NEWS

NOVEMBER 1955



ATOMIC  
CRYSTAL  
BALL





**THIS "PEDIGREE"**  
**ASSURES COMPLETE**  
**QUALITY CONTROL**  
**BEHIND EVERY ITEM IN THE NEW**  
**M·S·A FIRST AID KITS**

Maximum freshness, sterility, and purity in every Unit "D" package in the New M.S.A. First Aid Kit is certified by M.S.A.'s Modernization Program. The latest and most scientific devices and methods for inspecting, testing, sterilizing, and manufacturing are constantly at work to maintain the highest standard in First Aid Kit quality and performance.

To be sure of INDIVIDUAL responsibility, the best guarantee of product protection, a Quality Control Number is stamped on every Unit "D" package. This number identifies the "pedigree" clear back through our every operation.

Our Modernization Program has been extended to the "All-Weather" steel case, package design, color keying of labels for antiseptics, burn treatments and many others, to meet Pharmaceutical standards. There's no doubt about it . . . the New M.S.A. "All-Weather" First Aid Kit is Big News . . . something you don't want to miss. Write for details, today; or better yet, ask your M.S.A. man for a demonstration.

**MSA**  
**SAFETY EQUIPMENT HEADQUARTERS**  
**MSA**

Call the M.S.A. man on your every safety problem . . . his job is to help you

**MINE SAFETY APPLIANCES CO.**

201 North Braddock Avenue, Pittsburgh 8, Pa.

At Your Service: 82 Branch Offices in the United States and Canada

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**WILLSON**  
**Kover-Mor goggles**  
*Strong...Light...Comfortable*

**Try this pair  
of nylons for longer,  
more comfortable  
service!**

**For Weldors ▶**

Willson *Spatterproof*® cover glass protects *Willson-Weld*® filter glass against pitting. (Note four indirect ventilating ports admit ample air but keep out sparks and flashes)



Style  
CW-70



Style  
CC-70

**◀ For Chippers**

Willson *Super-Tough*® lenses are heat-treated for impact resistance. (Note four screened eye cup ports admit air to keep lenses fog-free)

*Kover-Mor Welding and Chipping Goggles fit easily over larger-frame prescription glasses—use standard 50 mm. round lenses—offer these other new Willson developments:*

1. Lightweight nylon offers *highest strength/weight ratio* known for goggle cups; non-flammable; won't conduct heat
2. External screw caps permit *easier lens* changing—no springs or clamps to remove
3. Standard 50 mm. round lenses make it unnecessary to stock odd-size replacement lenses
4. *Extra ventilation* is provided by slots in screw caps plus ports in cups
5. *Comfortable fit* is assured by adjustable two-piece head-band, leather bridge curtain and rigid metal top bar



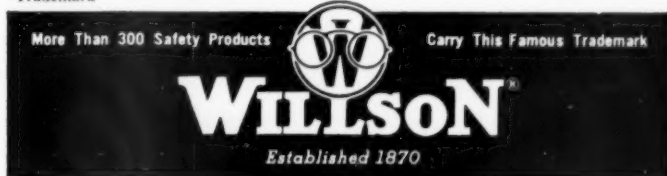
**Notice the rigid metal top bar**

—standard on Willson Kover-Mor\* Goggles. Makes them easier to handle—holds them firmly in place.

**Ask your Willson distributor for new Kover-Mor\* Welding or Chipping Goggles —strongest lightweight goggles you can get — or write for new bulletin.**

\*Trademark

**Easy to get anywhere!**



**WILLSON PRODUCTS, INC., 205 Washington St., Reading, Penna.**

# SAFETY NEWS

Published monthly by National Safety Council

NOVEMBER 1953

THE COVER: A preliminary view of atomic things-to-come. Esther Sonn, of General Electric's Knolls Atomic Power Laboratory, operated by G-E for the Atomic Power Commission, peers into a plastic model of a 225-foot, 14 story high steel sphere which will house the laboratory's land-based prototype of an atomic power plant for U. S. Navy submarines. The sphere will contain a complete submarine hull section, as shown inside the plastic ball.

## IN THIS ISSUE

Federal Charter Presented as 41st Congress Opens.....	18
Hot Rod Conversion (Diary of a Safety Engineer)— Bill Andrews .....	20
Placement—Not Exclusion—Frank P. Guidotti, M.D. ....	22
Poor, Crazy, Mixed-Up People—Robert D. Gidel .....	23
Protection Against Contaminated Atmospheres— Benjamin F. Postman .....	24
Proving Ground for Safety .....	26
Associations Win Awards, Too—A. M. Baltzer .....	28
No Mystery About Chain Failures—N. J. Gebert .....	30
How High Can a Fork Truck Reach?—Harold Milz .....	32
Officers, Directors and Trustees, NSC—1953-54 .....	34
Out of the Gray—N. A. Mason .....	36
Facts About Welding—H. F. Reinhard .....	38
The Taxpayer Gained .....	46
Letter from a Ship Builder—William H. Reynolds .....	50
Five-Star Contest .....	54
Who Is Morally Responsible?—Paul F. Power .....	58
Quotable Quotes—Dr. J. L. Rosenstein .....	92

## DEPARTMENTS

Editorial .....	17	Coming Events .....	66
Lighter Side .....	21	Personals .....	70
Accident Barometer .....	40	What's New .....	74
Small Businesses and Associations .....	44	Reader's Point of View .....	82
Green Cross News .....	48	President's Medal Awards .....	133
Safety Library .....	52	Safety Films .....	133
Cases for Comment .....	56	Safety Posters .....	166
Industrial Health .....	60	Calendar Contest Winners .....	174
For Distinguished Service .....	62	New Products .....	176

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# feet

## are as different as fingerprints!

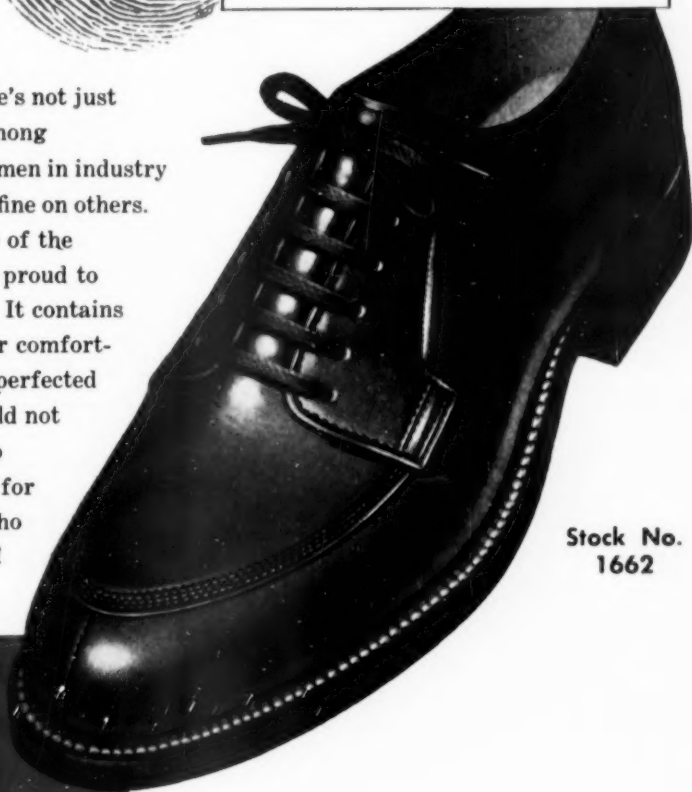


### LEHIGH GUIDE-STEPS

Contour-Measured to 1/100th-inch at 19 points instead of the usual 4!

### YOU CAN'T ARGUE

with the man who says regular safety shoes don't fit him. Chances are he's not just a crank. There's a world of difference among feet. And there are tens of thousands of men in industry who suffer acutely in the shoes that feel fine on others. After 24 years of research through one of the nation's leading universities, Lehigh is proud to introduce this new GUIDE-STEP shoe. It contains no pads, buttons, arch-supports or other comfort-gimmicks of the past. It relies solely on perfected internal contours to fit the foot that could not be fitted comfortably before. It needs no "breaking-in". It is designed expressly for the hard-to-fit. But almost every man who tries it on will find it more comfortable!



Stock No.  
1662

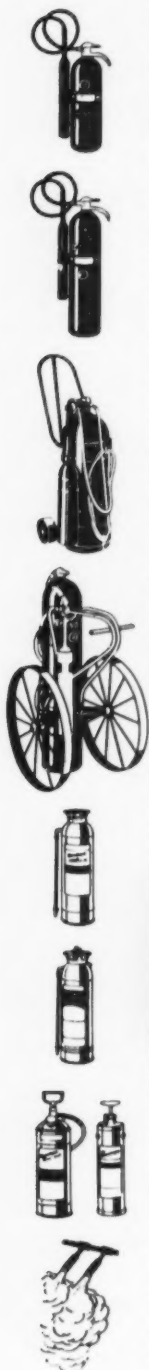
# LEHIGH

## SAFETY SHOE COMPANY

### ALLENTOWN, PA.



**BETTER BECAUSE THEY'RE FASTER... FASTER BECAUSE THEY'RE PANIC-PROOF!**



with the world's  
finest valve  
mechanism, the  
"heart" of any  
extinguisher

## **RANDOLPH** SIMPLIFIED *fire extinguishers*

All types, all models.  
Underwriters' approved.  
Hose reel, manual and  
fully automatic systems.  
Complete engineering  
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Foremost producers of simplified fire protection equipment  
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*It's bad air that does it. But you can step up production by putting a Coppus Blower on the job to keep the air moving — and keep the men cool.*

The kind of air a man works in has a lot to do with how much work he can turn out.

In confined places like shipholds or tanks or drums or boilers . . . or wherever the air is stagnant or hot or full of fumes . . . a Coppus Blower is a *must* for getting first-class work out of the men, all the time.

A Coppus Blower or Exhauster helps avoid sickness and lassitude due to bad air . . . and improves morale, too.

Portable and adaptable for special purposes, Coppus Blowers and Exhausters will have dozens of uses around your plant. The "Blue Ribbon" (a blue painted band) is your assurance of quality performance at lowest cost.



## COPPUS

BLUE RIBBON BLOWERS



THE BLOWERS THAT PUT MORE MINUTES IN EVERY MAN-HOUR

CABLE MANHOLE AND TANK VENTILATORS — BOILER MANHOLE BLOWERS AND EXHAUSTERS — HEAT KILLERS — SHIPHOLD VENTILATORS . . . DESIGNED FOR YOUR INDUSTRY — ENGINEERED FOR YOU

**MAIL THIS COUPON** To Coppus Engineering Corp., 131 Park Avenue, Worcester 2, Mass. Sales offices in THOMAS' REGISTER. Other "Blue Ribbon" Products in BEST'S SAFETY DIRECTORY.

PLEASE SEND ME INFORMATION ON SUPPLYING FRESH AIR TO MEN WORKING:

- ☐ in tanks, tank cars, drums, etc.
- ☐ in underground cable manholes.
- ☐ in aeroplane fuselages, wings, etc.
- ☐ on coke ovens.
- ☐ on steam-heated rubber processes.

- ☐ on boiler repair jobs.
- COOLING:**
- ☐ motors, generators, switchboards.
- ☐ wires and sheets.
- ☐ general man cooling.
- ☐ around cracking stills.

- ☐ exhausting welding fumes.
- ☐ stirring up stagnant air wherever men are working or material is drying.
- ☐ drying of walls, sheets, etc., after treated with coating material.

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COMPANY .....

ADDRESS .....

CITY .....

(Write here any special ventilating problem you may have.)



**Setol Cleanser HAS WHAT IT TAKES  
TO MACHINE-SCRUB OILY FLOORS—**

***Faster  
cleaning action!***

### **Cuts operating time of the scrubbing machine**



Finnell 213P  
Scrubber-Vac

Because *Setol* is specially compounded for the greater speed of *combination-machine-scrubbing*, it must and does work faster than average alkaline cleansers. *Setol* saponifies and emulsifies grimy oil and grease *instantaneously*. The wetting agent in *Setol* floats the oil for fast, easy, and thorough removal by the vac of a *combination machine* or with a separate vac unit. And because *Setol* stays fast-acting longer—does not spend its strength quickly as do ordinary oil and grease solvents—less is required to clean a given area. Thus *Setol* saves on materials and, by speeding the cleaning process, cuts operating time of the scrubbing machine . . . reduces labor costs . . . and saves on brushes. Best of all, *Setol* gets floors *oil-free clean!* Also acts as a disinfectant (contains pine oil), and leaves a pleasant, clean aroma.

Applies cleanser, scrubs, and picks up — in ONE operation!



- A constant, fast-acting cleanser for machine-scrubbing cement, wood, wood block, metal, stone, and terrazzo floors
- Consistent use on cement floors prevents cement dusting . . . provides a finish that helps seal out waste materials

For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 2211 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

**FINNELL SYSTEM, INC.**

*Originators of Power Scrubbing and Polishing Machines*



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IN ALL  
PRINCIPAL  
CITIES

# Sure Steps to PROTECTION!



Twenty engine companies and three fire boats were required to "control" this \$258,000 fire at Cardinal Mills in New York which, like all other disastrous industrial fires, started as a small blaze



## CARBON DIOXIDE FIRE EXTINGUISHERS

Destructive fires originating from electrical or flammable liquid hazards can be stopped when they start by quick action with Buffalo CO<sub>2</sub> Extinguishers. "Quick action" is sure when Buffalo CO<sub>2</sub> Extinguishers are close by because the Squeeze Grip Valve is so simple and easy to operate. Simply, pull the safety lock pin and squeeze! Clean, dry, odorless, inert gas under high pressure snuffs out flames in seconds!

Buffalo manufactures a complete line of fire extinguishers for positive protection from every fire hazard. Order Buffalo fire protection today! Consult your Classified Telephone Directory or write for your nearest Buffalo distributor.

UNDERWRITERS' LABORATORIES AND FACTORY MUTUAL APPROVED

### BUFFALO FIRE APPLIANCE

C O R P O R A T I O N  
D A Y T O N , O H I O

# We owe you an apology!



To the many who waited for the MScO No. 1030 Americaine Burn Spray Packet—our apologies—and our sincere "thank you" for your patience. The lengthy delay was caused by the inavailability of one of the component parts requiring a highly specialized metal. We could not permit substitution without impairing the quality of the item. We are happy to announce that stocks are now available for immediate shipment.

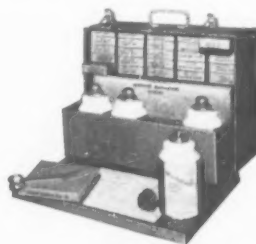


## BURN SPRAY FIRST AID KITS

quick . . . thorough . . . painless . . . sanitary . . .  
the largest assortment of burn spray kits ever offered

Doctors agree that certain basic principles or conditions are present in all cases of burns. The "first aider" is qualified to deal only with the first three:

Relieve Pain . . . Prevent Infection . . .  
Treat Shock. See how fast and effectively this can be done with MScO Burn Spray First Aid Kits. Write for details.



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# Medical Supply Company

• ROCKFORD, ILLINOIS

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"It pays to buy—from Medical Supply"

National Safety News, November, 1953



# your best defense against eye injuries

- Optically Clear Lens
- Feather-We Comfort
- Smart Appearance
- Low Cost Replaceable Lens
- Optically Correct
- Fits Over Facial Mask
- Meets Federal Spec. for Impact
- Employee Approved

## the SAF-I-SPEC



LENS can be changed almost instantly and no special tools are required.

No. 241003  
ALL CLEAR



No. 242003  
ALL CLEAR  
WITH SIDE SHIELDS



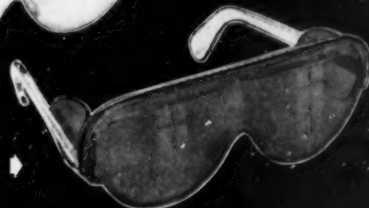
No. 241503  
ALL CLEAR  
WITH GREENTOP



No. 242123  
ALL GREEN  
WITH SIDE SHIELDS



No. 241123  
ALL GREEN  
ANTI GLARE



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KANSAS CITY 6, MISSOURI — BRANCHES IN PRINCIPAL INDUSTRIAL CITIES

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#### FEDERAL MODEL "J" SIREN

- Distinctive high pitched tone warns of emergency.
- Improved air intakes and sound projectors utilize and direct sound waves with utmost efficiency.
- Extreme durability with no sacrifice of volume.
- Low current consumption reduces heat rise.
- Withstands extreme voltage surges — powered from AC or DC high voltage lines.
- Equipped with universal motors — available for 110-220-250 volts.

You never know when a cable might break or a load might shift. Unless warned, workers on the craneway face swift falling death from above.

Shouting won't do it, nor will an ordinary signal. You need a distinctive warning signal . . . a siren that overcomes intensely high noise levels. You need the powerful, distinctively high-pitched Federal "J" siren — specifically designed for electric cranes and similar equipment for handling heavy materials.

The Federal "J" is a heavy-duty siren, designed to protect for long periods of operation, repeated 24 hours a day. Adaptable to almost any application — weatherproof — complete with adjustable brackets for mounting anywhere.

Where heavy-duty, high frequency of operation is necessary — where distinctive, penetrating sound protection can save lives — install a FEDERAL "J" SIREN.

Write now for Industrial Sirens Bulletin No. 111

**FEDERAL ENTERPRISES, Inc.**

formerly: Federal Electric Company, Inc.

8725 SOUTH STATE STREET • CHICAGO 19, ILLINOIS



Operator confidence soars—and so does production—with the Schrader Press Control. For this control is definitely a two-hand device. It is designed so that the hands that feed the die must also operate the press. Both hands must be used simultaneously for each operation of the press and cannot stray into the danger zone when the ram comes down.

This *increased safety* of Schrader's Press Control lets operators build a worry-free rhythm that puts new speed in your presses in just a short time.

What's more, Schrader Controls end the fatigue common with mechanical foot pedal operation—a Schrader-

## Reduce Danger Here

equipped press can be run as easily as an ordinary typewriter.

Wherever you have a power press—or any machine with a mechanical clutch—there's a chance to increase safety . . . boost operator confidence and thus increase production with a Schrader Control.

Let us help you decide what will best fit your needs. Write, describing the machines you plan to equip—or fill out the coupon below.

# Schrader

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Air Cylinders • Operating Valves •  
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• Hydraulic Gauges • Uniflare Tube  
Fittings

products

control the air

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Division of Scovill Manufacturing Company, Incorporated  
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Name..... Title.....

Company.....

Address.....

HERE'S

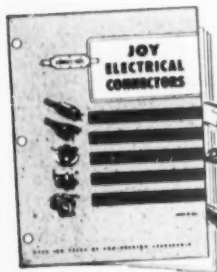
# VISUAL PROOF

that **JOY PLUGS**  
are  
**Distortion-Proof**



*Taken at one two-thousandths of a second, unretouched photo reproduced above shows a JOY 372M electrical connector absorbing the full impact of a heavily swung 10 lb. sledge hammer. Punished by twenty-four (24) similar blows while being so photographed the connector was then thoroughly tested for defects with results as reported at right.*

When the problem is selecting electrical connectors for industrial applications and units in use *haven't quite measured up to requirements*, it's time to switch to JOY. Factory molded into one-piece Neoprene insulated units, JOY connectors can't crack or be smashed out-of-shape when dropped — won't become mushy when smeared with grease or oil — and are absolutely moisture-tight. Cork-like action of their Water-Seal also prevents metallic dust from accumulating around contacts when they're connected. Why accept less when the best actually *costs less* in the long run?



Ask for your free copy of this attractive two-color sixteen page Bulletin. Numbered MC108 it illustrates and describes many of the popular electrical plugs and receptacles JOY makes for Industry.

Consult a Joy Engineer



More than 100 years of Engineering Experience

**JOY MANUFACTURING COMPANY**

HENRY W. OLIVER BUILDING, PITTSBURGH 22, PENNSYLVANIA  
IN CANADA: JOY MANUFACTURING COMPANY CANADA LTD. GAITHERSBURG, ONTARIO

## TEST REPORT

Date: 2-4-53

No. 367

### OBJECT:

To determine the effect of heavy blows on a 372M connector.

### PROCEDURE:

A 372M plug was selected at random from stock, placed on an anvil and struck 24 times with a 10 lb. sledge hammer. Impact force of each blow being approximately 40 foot pounds.

### TEST DATA:

**VISUAL INSPECTION:** No distortion of original shape. Center pin slightly misaligned, however plug's ability to engage mating connectors unimpaired.

**FLUOROSCOPE INSPECTION:** Conductors intact and undamaged. No intermittent electrical opens in wiring.

**ELECTRICAL TEST:** 1500 volts AC RMS applied for 5 continuous minutes. Insulation between contacts did not break down.

### COMMENTS:

JOY 372M plug relatively undamaged by blows described above. Should still render many years of satisfactory service under normal conditions.

*Alfred V. Mucci*

A. V. MUCCI  
Supervisor Inspection





MODEL 440



MODEL 438



MODEL 411



MODEL 412



MODEL 425

## Introducing

# PENOPTIC

## Protective

## FACE SHIELDS

The high quality and performance of Pennsylvania Optical products throughout 67 years of ophthalmic development have been incorporated in these new face shields. The clear or green, metal-bound, acetate windows are non-pitting, flame-resistant. (Bronze fine wire mesh windows are also available.) Each model permits free passage of air about the head . . . can be worn over goggles or prescription eye glasses. Now, Penoptic's manufacturer-to-you distribution policy again offers new opportunities to save with safety.

### CONSTRUCTION FEATURES

- Windows of finest optical acetate provide that extra measure of safety.
- Snap-tight fasteners permit speedy, secure attachment of windows to headgear units.
- Formed fibre crown protectors extend coverage over brow; support windows firmly.
- Disposable sweatbands of absorbent, anti-septically treated paper for new maintenance economy and improved industrial hygiene.
- Fibre headbands treated for moisture-resistance, tough, easy to clean, easy to adjust.
- Plastic sleeves cover adjustable headbands for added smoothness and comfort of fit.
- Adjustable spring tension assembly permits easy lifting of window to raised "off" position; holds securely in lowered "safe" position.

*For Prices And Full Information On Complete Line Of Face Shields Write Directly To:*

*Order Direct  
and Save!*

## PENNSYLVANIA OPTICAL COMPANY

READING, PENNSYLVANIA

*Known For Fine Ophthalmic Products Since 1886*



*if you want **protection** from*



STUDY OF ACTUAL FALLING SEQUENCE BY STROBOSCOPIC MULTI-FLASH EQUIPMENT AT 1/10,000 OF A SECOND

*...use **FLOORSAFE,***  
*the new anti-slip floor dressing*

Protect your place of business from crippling falls. Floorsafe gives your floors "Traction-Action."

Anti-slip synthetics with a high coefficient of friction are used in the manufacture of this new floor dressing discovery.

Floorsafe is approved and recommended by major U. S. insurance companies. Call, wire or write.

**MYCO**  
PRODUCTS

**MASURY-YOUNG COMPANY**

76 ROLAND STREET · DEPT. 51 · BOSTON 29, MASS.  
BRANCH OFFICES IN PRINCIPAL CITIES

# NOW...the first safety-perfect dry chemical fire extinguisher

the "REDI-FLO" MARK II®

featuring revolutionary  
"Spheral Valve" Design

When you squeeze the grip of the one-hand operated "Redi-Flo", Mark II, you get action—a powerful, instant flow of fire-killing dry chemical that streams out fast and freely—without fail!

With new, exclusive "Spheral Valve" Design, Stop-Fire rules out all possibility of extinguisher failure due to clogging or jamming of the valve. When fire occurs, you're never left holding an extinguisher that refuses to operate. Dry chemical particles can't possibly foul Stop-Fire's "Spheral Valve", nor can accidental distortion of the valve mechanism possibly interfere with valve operation. In fact, the "Redi-Flo", Mark II, may be partially discharged over and over—even with this "stop-go" action, it never hesitates or fails. When you reach for the "Redi-Flo", Mark II, you KNOW it will go!

**Safety-Perfect in Every Respect**—Investigate the "Spheral Valve" (Patent Pending) and the 7 other features for Safety-Perfect Performance offered by the "Redi-Flo", Mark II. Write Stop-Fire for all the facts today!



**For safety-perfect dry chemical fire protection, insist on Stop-Fire's safety-perfect "Redi-Flo", Mark II!**

Now available in  
3, 5, 10 and 20 lb  
capacities (4 lb and  
30 lb units  
available shortly)

Approved by  
Underwriters'  
Laboratories, Inc.

**YOURS FOR THE ASKING!**  
All the facts on the new "Redi-Flo,"  
Mark II. Write for new four-page  
Stop-Fire Bulletin RF-853.



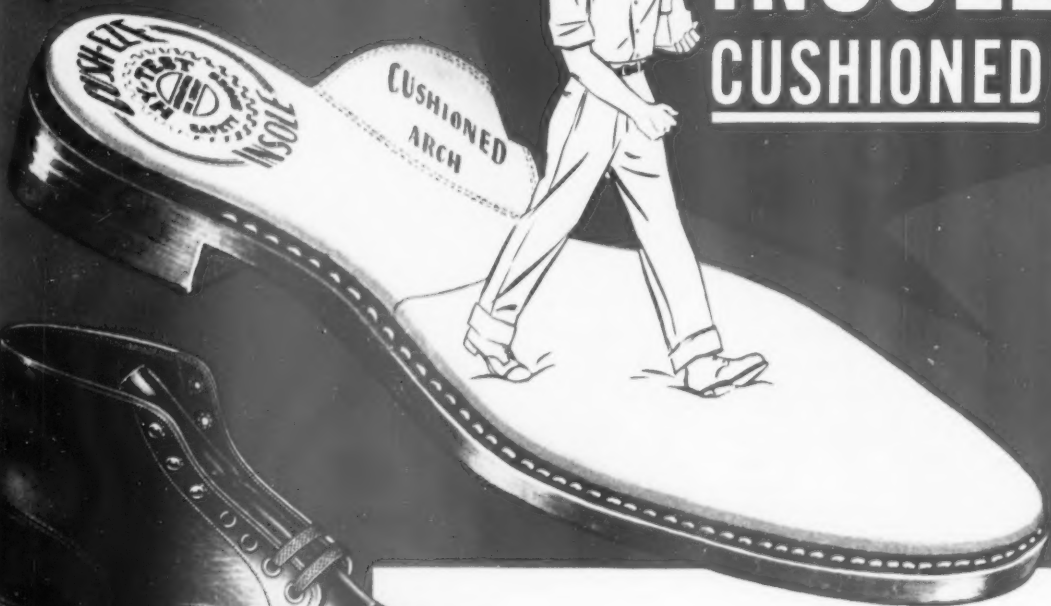
125 ASHLAND PLACE • BROOKLYN 1, N. Y.

"Pioneers of Modern Stored Pressure Fire  
Extinguisher Design"

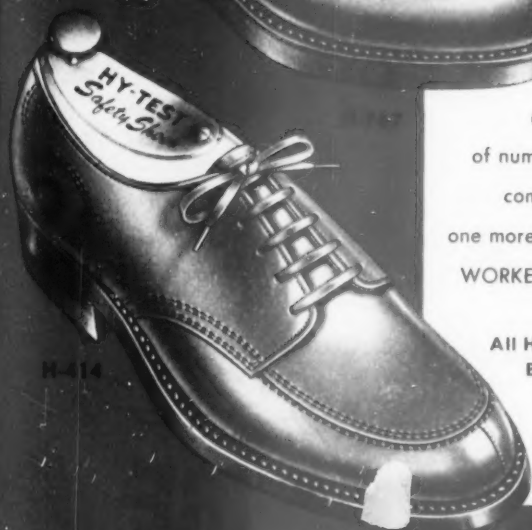
Manufacturers of the World's Most Complete Line of Fire Extinguishers:  
"Redi-Grip" Stored Pressure and "Redi-Flo" Dry Chemical Extinguishers  
"Redi-Matic" Systems for Automatic Fire Protection • Foam • Soda-Acid  
Water Cartridge-Operated • Carbon Dioxide • Pump Type Extinguishers

Another  
New HY-TEST  
Comfort Feature

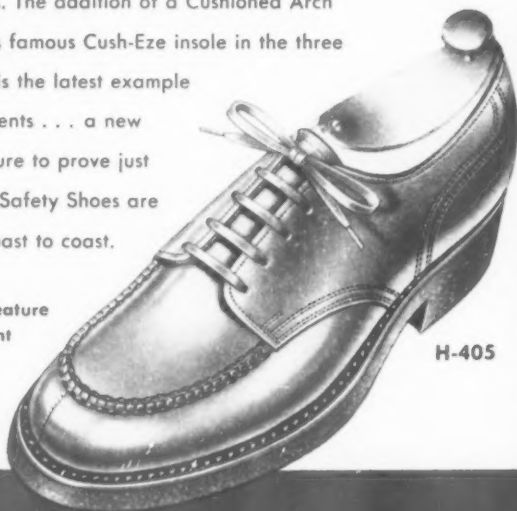
# CUSH-EZE INSOLE with CUSHIONED ARCH



Hy-Test is constantly on the lookout for ways and means to improve its already outstanding line of safety shoes. The addition of a Cushioned Arch to Hy-Test's famous Cush-Eze insole in the three numbers shown here is the latest example of numerous such improvements . . . a new comfort feature that is sure to prove just one more reason why Hy-Test Safety Shoes are **WORKER-PREFERRED** from coast to coast.



All Hy-Test Safety Shoes feature  
Bol-Tan Sweat-Resistant  
leather insoles.



## HY-TEST SAFETY SHOES

Worker-Preferred  
From Coast  
To Coast



THE WORLD'S LARGEST SELLING SAFETY SHOE  
DIVISION OF INTERNATIONAL SHOE COMPANY  
ST. LOUIS 8, MISSOURI  
140 NORTH BROAD STREET, PHILADELPHIA, PA.



### A Vote of Confidence

EACH of the 41 National Safety Congresses has been remembered by delegates for a variety of reasons. Perhaps the highlight was an outstanding speaker at one of the larger meetings. Perhaps it was a paper or a panel discussion at a sectional meeting that produced a workable idea. Or it may have been the beginning of new friendships.

Many will remember the slim depression Congresses of 1932 and 1933; a few may even remember 1921. And there were the wartime gatherings with their patriotic notes, including the skeleton Congress of 1945 which was limited to brief business sessions.

The 41st Congress had a special significance. It marked the fortieth anniversary of the founding of the National Safety Council, the organization which translated into action the high purposes of those who had sponsored the First Cooperative Safety Congress the previous year.

The Congress just completed was memorable for another reason—the presentation of the Federal Charter bestowed by the Congress of the United States as a special birthday present to the Council. This charter is a tangible expression of the nation's concern over the accident problem, its recognition of the Council's services in the past and of confidence in its continued leadership.

Less than a decade away is the fiftieth anniversary of organized safety work. By that time many of those now serving the cause of safety will have turned over their duties and responsibilities to others. But we may be confident that the safety movement, in the future as in the past, will continue to attract able men and women to its service.

And is it too much to hope that on safety's golden anniversary the work of accident prevention on the highways and in the homes will show results comparable to those achieved in industry?

\* \* \*

### No Time to Waste

OUR NATION—and, in fact, the whole world—is confronted with problems that are both numerous and perplexing. With men of ill will

controlling the destinies of many million people, we have the costly duty of keeping up our defenses.

On top of that, the situation is complicated by an increasing and aging population.

These two problems mean that per worker productivity will have to increase 43 per cent by 1960. Carroll W. Boyce, associate editor of *Factory Management and Maintenance*, told a recent meeting of the ASME. This, of course, will call for greatly improved techniques throughout industry.

But the technical side of the problem is not the only one. Management's task, says Mr. Boyce, is that of coordinating the three basic resources—human, physical (including machines, materials and money) and time.

The high-speed integrated production in the plants of tomorrow will multiply by many times the cost of each minute lost to production when something happens that isn't in the original plans. Top management must anticipate deviations and provide reasonable guides to direct action when such deviations occur.

Since deviations are more or less unpredictable, the guides must be flexible. Within them every level of personnel must be invested with authority to make instant decisions.

To provide people who can be trusted with such authority is management's No. 2 problem.

Problem No. 1 for industry, according to Mr. Boyce, is the selection and development of executives of broad intellectual capacity and understanding, men who are able coordinators and planners, who will not only be willing to accept change but able to rationalize an increasing tide of individual changes into a pattern that is sound economically and socially.

In the abstract of Mr. Boyce's address there is no specific mention of safety, but its place in the new pattern is quite obvious. With the skyrocketing cost of lost time under such conditions, the indirect losses through accidents could be enormous, even though compensation costs remain stationary. And current trends indicate that they won't.

Industry's complex split-second future will need safety men who have the authority to make instant decisions—men who understand plant processes as a whole and who will use such authority with discretion.

# Federal Charter Presented As 41st Congress Opens

Colorful ceremony marks Annual Council Meeting.

New records set for meetings, speakers and attendance

THE Grand Ballroom of the Conrad Hilton Hotel has been the scene of many Annual Meetings since the hotel (then The Stevens) was host to a National Safety Congress for the first time in 1927. But no Congress was ever opened with more impressive ceremony than was the 41st on Monday, October 19.

The occasion was the presentation of the Federal Charter to the National Safety Council, another milestone in the history of a movement which began with the First Cooperative Safety Congress in 1912 and was followed by the organization of the National Safety Council the following year.

The charter was presented by the Honorable Clifford Davis, Congressman from Memphis, Tenn., a champion of safety for many years and a leader in the campaign to secure recognition of the Council in Congress. Accepting the charter on behalf of the Council were Colonel John Stilwell, representing the Trustees, Franklin M. Kreml, representing the Board of Directors, and President Ned H. Dearborn.

"The benefits of the charter are more intangible than tangible," said Colonel Stilwell, who was president of the Council during the critical, fast-moving period of 1939-1944.

"We all agree," he continued, "that it is a fine thing for the national government—Congress and the President—to confer this charter upon the Council. For it is a way of saying, in effect, that the work of the Council and the importance of that work are recognized by the government and

that it has confidence in the way the work is being done.

"But to me, the federal charter means much more than that. It means that the government has now imposed upon the National Safety Council not only the right but the obligation to lead a relentless, unceasing fight to reduce the accident toll in every field of human activity.

"Of course, the Council has been doing all this. But now we must work even harder and do even more to accomplish our aims. And one of the things I hope and believe this charter means is that the Council is entitled to, and will get, the support of the American people. This safety movement deserves the financial as well as the moral support of all the people. Words alone will not stop accidents. It takes work and time and personnel, and it takes money, to provide those things.

"I have looked forward to this day for a long time. It means we are getting somewhere in our war on accidents."

President Dearborn paid a warm tribute to Congressman Davis for his long and valued service to safety, dating back to his days as a traffic judge in Memphis, as an officer of the Council and later in Congress.

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## The 1954 Congress

**The 42nd National Safety Congress and Exposition will be held in Chicago, October 18-22. Headquarters will again be in the Conrad Hilton Hotel.**

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"This charter means that the National Safety Council has come of age, that it has received its driver's license, so to speak," said Congressman Davis. "From now on it has to step out faster and farther than it ever did before. This is the government's way of saying, 'We believe in you! We're behind you! Go get 'em.'"

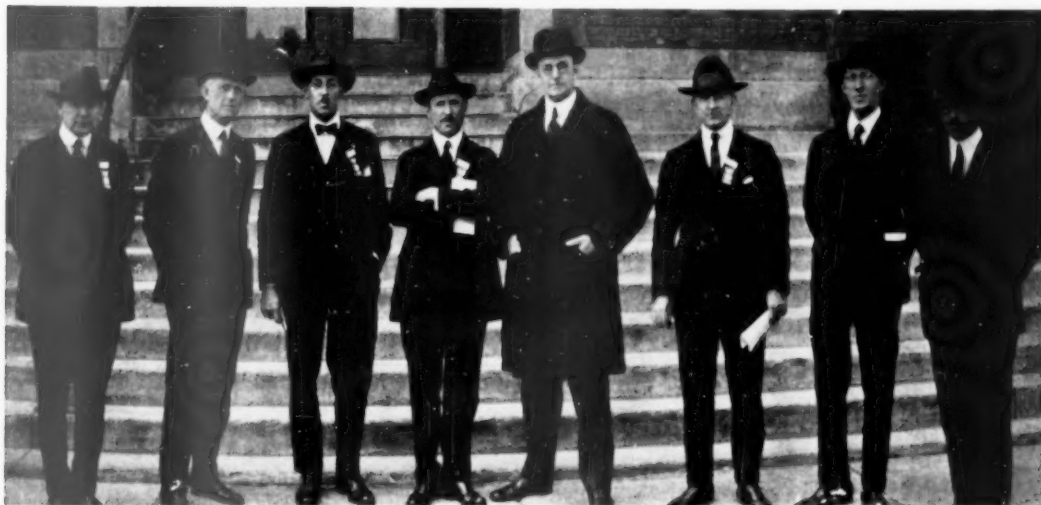
Then as the lights were dimmed and the spotlight turned on the stage, Congressman Davis drew back the curtain revealing the beautiful charter.

A scheduled speaker at the Annual Meeting was the Honorable Ivy Baker Priest, Treasurer of the United States, an energetic safety leader in her home state of Utah and an able proponent of the Council's federal charter in Washington. But almost on the eve of the Congress, Mrs. Priest's health made it necessary for her to cancel all speaking engagements.

Fortunately, Mrs. Priest had an able substitute in her 17-year-old daughter, Patricia, who read her mother's prepared address and added a few informal remarks of her own concerning youth's part in accident prevention. For the second successive Congress a personable teen-age girl had filled a prominent spot in the Annual Meeting, with a poise and charm that delighted and impressed the audience.

In the business meeting preceding the presentation of the charter, the slate of officers presented by the nominating committee was accepted. E. F. du Pont, director of Employee Relations, E. I. du Pont de Nemours & Company, was re-elected chairman of the Board of Directors. Franklin M. Kreml, di-

## How Many Do You Remember?



ABOVE ARE OFFICERS of the National Safety Council for 1920-21—the earliest group picture that could be found in the Council's files. Left to right: W. H. Frater, treasurer; C. W. Price, general manager; Lewis De Blois, second vice-president; William H. Cameron, first vice-president; C. P. Tolman, president; William E. Worth, third vice-president; John A. Oartel, fourth vice-president; Sidney J. Williams,

secretary and chief engineer.

Mr. Cameron, who had left the Council in 1919 to become associated with Eastman Kodak Company and later with the National Workmen's Compensation Bureau, returned as managing director in 1921, continuing in that office until his retirement in 1942. Mr. Williams is still on the Council staff as assistant to the president.

rector, Traffic Division, International Association of Chiefs of Police, continues as vice-chairman of the Board, and Ned H. Dearborn as president.

A complete list of officers, directors and trustees elected at the Congress will be found on page 34.

In the Audience at the Annual Meeting was a delegation from West Berlin, Germany, representing industry, labor and other interests engaged in the establishment of a safety organization there. They listened with headphones while an interpreter at a microphone translated the program.

A translation of a letter from Ernst Reuter, mayor of West Berlin, written some two weeks before his death on September 29, was read by President Dearborn. Arthur Wegener, representing the delegation, presented greetings to the Council in English and presented Mr. Dearborn with a replica

of the Freedom Bell from West Germany.

Every available guest room, meeting room and every foot of exhibit space was booked well in advance of the Congress. The Exposition occupied space on the second and third floors of the Hilton in addition to filling the Exhibit Hall on the lower lobby level.

Before the official opening of the Congress on Monday morning, many delegates had spent three meeting-packed days. The Annual Conference of Safety Council Managers held sessions Friday and Saturday.

Sunday, the Industrial Conference, composed of representatives of the various sections, met to report progress and to plan programs for the coming year. E. C. McFadden, vice-president of Texas Employers Insurance Association and the Council's new vice-president for industry, was elected chairman of the Conference. Herman Spohrer,

director of industrial relations, Youngstown Sheet & Tube Company, Youngstown, Ohio, was elected vice-chairman, and Charles F. Alexander, manager of the Council's Industrial Department, was re-elected secretary.

### The Charter

The beautiful illuminated framed document, which was presented to the Council at the Annual Meeting, contains certain essential features of the incorporation act, names of sponsors and other leaders in both Houses of Congress, and an official statement concerning the transition of the Council's assets and program from the Illinois corporation to the federal corporation.

It is this framed document that will be commonly described as the Council's "charter." The Act of Congress which chartered the National Safety Council as a federal corporation is deposited in the National Archives at Washington.

# Hot Rod Conversion

(Fiction)

By BILL ANDREWS

*Monday, November 2, 1953*

THE DAY AFTER I got back from the National Safety Congress, the plant protection chief called up and asked if he could see me. He came to my office and brought the chief of our city police with him. They both looked worried.

The city man said, "This is going to be a tough season, unless we get smart."

I asked him what he meant.

"The kids," he said. "I've been on the force here 20 years and I've seen 'em in good and bad years. This is going to be a bad one. The Hallowe'en vandalism is starting early, and it's nastier than usual. There have been some hoses and bike tires slashed. Three false fire

alarms last week. And some of the window decorating isn't soap, but paint, and some of it's obscene."

Our plant chief nodded. "We've caught some of it on the West shop where it fronts on Elm Avenue. And the barbed wire on top of the yard fence has been cut. We don't know whether the kids stole anything but they got over Wednesday night and must have done some prowling around."

I saw, then, why I figured in the picture. I've always drummed into the protection force men's heads the idea that a kid trespasser was a potential accident and that for their protection as well as our own we had to keep them off the property. Especially off the yard,

where the piled material is a hazard, and where the railroad tracks are within a few steps walk.

I turned to the city chief. "Have you got any ideas about what we can do?"

He looked worried. "Not any ideas I think are very good. I've been making the Coke Shop and the City Drug after school, trying to do some missionary work. The kids who'll listen to me probably aren't the trouble makers, and the one's I had trouble with before just don't pay any attention except to laugh at me after I leave. The service clubs are figuring on their annual parties on Hallowe'en, but they don't stop this early stuff."

I said I'd see what I could do, and we left it at that.

A couple of nights later we had my assistant, Harry Dexter, and his wife to dinner. Sue mentioned that a neighbor had some paint smeared on his porch the night before. So that brought up the whole problem and we talked about it. Suddenly, Harry said, "I've got a hunch."

"What?" I asked.

"Remember, I made a speech at the high school about fire prevention in October. There was a kid there, Johnny Last, he's something on the student council. Anyway, after the meeting he buttonholed me. He's planning on an engineering education, and he pumped me pretty hard about the possibilities in safety work. There might be an angle there."

I thought he might be right, so the next day, Harry and I went up to see the high school principal. He, too, was disturbed about the vandalism, but he wasn't sure how he could help us. I told him I wanted to try a constructive, not a punitive approach, and I asked whether we could get Johnny Last released from classes that afternoon to come to the plant. I asked the principal to say nothing about the vandalism, and he agreed. "But I doubt if Johnny will be much help. He's not the type to get mixed up in this sort of thing, and he isn't any tattletale, either."

That afternoon, when Johnny



came to my office, I talked about his interest in safety work, and I had Harry take him around and show him how we work. The yard was part of the tour, and, naturally, the question of the hazard of trespassing came up.

When they got back to my office, I laid out for Johnny the advantages and disadvantages of safety engineering as a career, and suggested that he just concentrate on his studies now and at Tech to get the best general preparation for engineering, leaving the question of his specialty for later decision. He asked some intelligent questions, and the talk went well.

As gently as I could I brought up the question of the trespassing, and vandalism in general. Johnny shrugged, "You know how it is. Some kids get crazy. I've got some ideas on who it is, but you can't expect me to tell the authorities."

"Not even to protect them from getting hurt or getting in trouble?" I asked.

"No, not even for that. Look, I don't pretend to be a bright guy who knows all the answers, but I read a book once in a while. You don't stop this kind of thing with a lecture. There's something back of it and you have to know what. And you have to do something about it. The police can threaten, and the principal can jaw, and maybe even the student council can pass a resolution, and so what. The little minority of trouble makers just get a kick out of knowing they've stirred up a stink, and they go right on with it."

"So, what can we do to find out what's back of it?" I asked.

Johnny had an answer to that one. "We need a Youth Center in this town. A good one. Not just a hole in the wall, with a coke machine and a juke box. But a place the gang can run, with books, and maybe a hobby shop, and a projector. We've been trying to get this town to give the kids a better hang out for a long time—better than the pool room and Mike's filling station."

"Mike's?" I asked.

Johnny was a little flustered.

"Oh, I just said that. Some of the hot rodders hang around there. Forget it."

After Johnny left, I called our truck maintenance chief. Yes, he'd missed some parts. Nothing much, but some tools and spark plugs and the like, stuff that had been around a repair job in the yard the last week.

So from then on, Harry started buying his gas at Mike's. The place was a hot rod hangout, all right. Afternoons and early evenings, the kids were around talking motors and girls and so on.

I rather suspect that The Jackson-Barnes Corp. safety department is the first such department to buy a hot rod racing car. We did, even though the requisition caused some eyebrow raising in the plant. Harry bought it for \$50 from a kid at Mike's. It was a purple and yellow, fenderless job with a motor that was supposed to be souped up, but which had developed lumbago of the generator complicated by tuberculosis of the carburetor. Also the brakes were out of whack, and a sudden stop produced most remarkable skids.

Harry brought it back to Mike's a couple of times, and Mike and the kids held solemn consultation over it. Their conclusion was that Harry had bought a lemon and was just stuck.

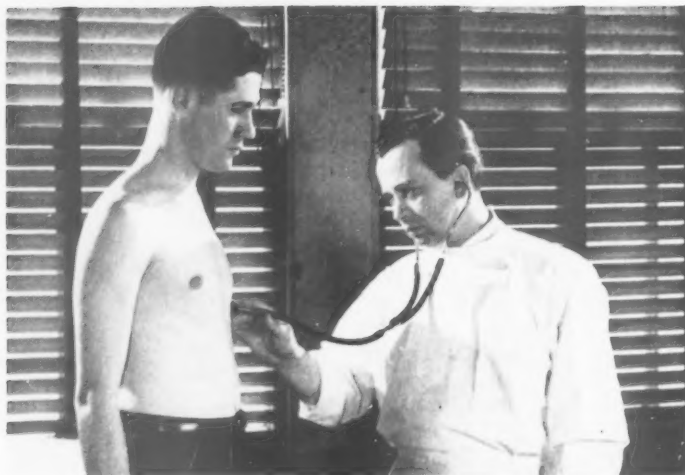
Then Harry told them he worked at the plant, and maybe our maintenance department could help. He called the plant and by a strange (and carefully pre-arranged) coincidence, our truck maintenance chief was there. So a procession of jalopies went to the plant gate, was admitted on Harry's say-so, and drove to the yard.

There was, I learned later, no vandalism in town that evening. The reason is clear enough. From 7:30 to 11:00 that night, the wildest bunch of crazy teen agers in town were watching in awe and admiration as three first class mechanics did things to Harry's hot rod—and to a couple of others—that had the kids' eyes popping. And before the night was over, we



had an agreement from the city police to let us use the fairgrounds for time trials the next afternoon.

A couple of days later, Mike  
—To page 171



# Placement — Not Exclusion

By FRANK P. GUIDOTTI, M.D.

**Few jobs demand a perfect physique. The examination should determine the man's fitness for available work**

**T**HE manpower shortage of World War II taught management that physical examination of an employment applicant should not be construed as a pre-employment examination aimed at screening out all but the most robust. It should be a selective preplacement examination directed at evaluating the physical capacities of an applicant and assigning him to work in which the physical demands and environmental factors are compatible with any limitations he may have.

The preplacement examination should be aimed at ascertaining whether there is evidence of an unrecognized bodily disease or

handicap and, if there is such evidence, of advising the individual how he can best meet the restrictions such disease or handicap may place on his behavior and activities, and so placing the employee with respect to his physical ability that his occupation will not affect his general health unfavorably. The preplacement examination should be part of an over-all medical plan (including placement procedures), advice as to remediable defects and treatment necessary, and periodic medical follow-up.

The program of preplacement examinations in industry is an important factor to be considered in determining the applicant's ability to perform a particular type of work. Industry today is becoming more educated to the extent that as a result of a recent survey of 330 industrial plants in the United States and Canada, covering a work force of one and one-half

million persons, more than 80 per cent have preplacement examinations.

The employment applicant being examined should be given every consideration normally accorded to a private patient. He should first be fully advised as to the purpose of the examination, which responsibility often falls to the nurse. The following reasons may be stated:

1. To guarantee the best possible placement to safeguard the employee's health.
2. To detect unrecognized pathology and advise remedial measures which will improve his health.
3. To minimize the occurrence of accidents.
4. To protect the health of all workers from communicable disease.

He should be advised that the examination and findings are kept in confidence in the Medical Records Division, and that they are available to his own physician for

DOCTOR F. P. GUIDOTTI is medical director of the New York Trades Council & Hotel Association Health Center, Inc., New York. This article has been adapted from a paper presented at the 23rd Annual Safety Convention of the Greater New York Safety Council.

guiding treatment when requested.

Scope of the examination has been widely discussed. Thoroughness is generally agreed upon, but how thorough? The applicant should be given a complete physical examination, which takes at least one hour. Such physical examination should include a complete case history, blood test for serology and hemoglobin, urinalysis for albumin and sugar, chest X-ray, and a complete physical examination by a well-trained industrial physician. This examination should include height, weight, pulse, temperature, vision test, ear-nose and throat examination, chest examination including heart and lungs, abdominal examination, and examination of all extremities including reflexes.

Record of preplacement examination is important and should be complete in every detail. Even though the examination may have been complete, if it is not fully recorded, careful follow-up is impossible. Incomplete records are of little or no value for comparison with subsequent return-to-work or periodic examinations.

At the Health Center, preplacement health examination findings are classified as follows:

- A. Physically qualified for any kind of employment.
- B. Physically qualified for position applied for, only. Patient has some minor correctable defect.
- C. Does not meet medical standards at present; will be re-rated if defects are corrected to meet medical standards.
- D. Does not meet medical standards. Employment not recommended for type of job applied for.

The personnel manager, or employment section, should be advised by telephone or transmitted form, or both, regarding the physical capacities and limitations of the applicant, but there should not be a discussion of diagnosis. In the case of C ratings, such as hernia and other remediable defects, and in the case of D ratings, such as hypertensive cardiovascular disease, employment is not recommended. The future employee is advised of his remediable defect by the medical director. Patients

## Poor, Crazy, Mixed-Up People

**E**RGAT picked up his fan by the metal guard to move it to a better spot in the room. He was too lazy to turn it off first . . . Well, who needs ten fingers anyway?

Suzie had to get a tray from a seldom-used top shelf of the kitchen cabinets. It would only take a minute so she climbed up on the cabinet handles to reach . . . Yipes! Who said three-point landings were the best?

Girard saw the caution light flash at the busy intersection while only a half block way. If I step on it I can just make it, he thought. Funny thing, but Ferdie thought the same thing while coming at right angles to Girard. Result: two young wolves licking their wounds in a hospital with their lairs badly smashed up.

Hemoglobin's little boy Corpuscule thought that was a mighty interesting thing lying alongside his daddy. So, he decided to pick it up to investigate. Whoops! Must a hot soldering iron.

Sans-tete, our French neighbor, knew he could just reach the top of the gable for that last swipe with the paint brush from the top rung of the ladder. Sacre bleu! Now he is sans-tete.

Arty thought goggles were hot and interfered with his field of vision, so he decided not to wear his. Bulls eye!—With a hot chip. At least that pretty blue glass eye won't get blood-shot after an all night bender, and I wonder if it will affect his field of vision.

Siebold thought hard hats were a bother and interfered with the wind and the rain in his hair. Well, he wouldn't have that pretty wave in his hair—where the bolt caromed off his noggin—if he'd been wearing his hard hat. But, who wants a wave, chin deep?

Arson was dying for a smoke. He knew there were "No Smoking" signs in the area, but, after all, he was 15 feet away and down in a ditch where the vapors would be blown over his head . . . Well, I said he was dying for a smoke.

Poor, crazy, mixed-up people!

ROBERT D. GIDEL, Senior Engineer,  
Industrial Department, National Safety Council

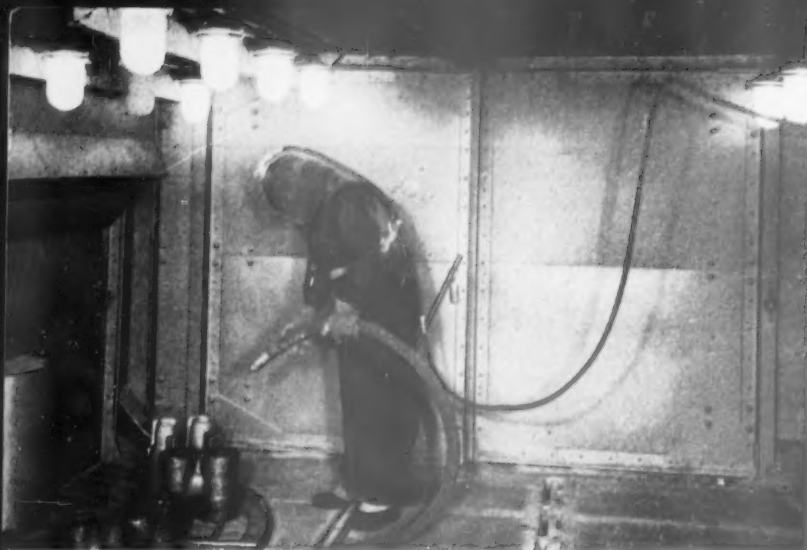
who have family physicians are advised to contact their doctor for further medical care. Those who cannot afford private medical care are referred to our Medical Social Service Worker who will endeavor to refer patients to appropriate community agencies, such as the Division of Vocational Rehabilitation or their local hospital clinics.

The Health Center covers a medical care program for approximately 35,000 hotel employees ranging from 18 to 35 years of age, with a median age of 47. The Preplacement Program in the hotel

industry of New York City was instituted March 1, 1951. During the past two years, we have had 639 preplacement examinations for employees new to the industry; or out of the industry for more than one year.

Of this group, there were 521 with a rating of A; 77 with B rating; six with C rating; and 35 with D rating; 13 examinations were not completed for various reasons. In the C group, there were five hernia cases and one thyroid tumor (goiter) case.

To page 150



Enclosed blast rooms with down-draft exhaust ventilation and the use of supplied-air respirators have minimized hazards of abrasive blasting.

# Protection Against Contaminated Atmospheres

By BENJAMIN F. POSTMAN

**P**ROTECTION against contaminated atmospheres represents a narrow but vitally important band of personal protection. This discussion will include protective devices available for normal industrial operations, but not equipment for mine rescue or fire-fighting purposes.

## Air Supplied Helmets

Until the appearance of the air-supplied helmet, one of the most serious exposures was in the casting cleaning or blasting room where sand-mold castings were cleaned of adhering molding sand. For years this was the lowest paid and dirtiest job in the foundry. Six months exposure in a blasting room where silica sand was the

only type of abrasive used—utilizing either a rag or handkerchief about the nose and mouth for protection—was all that was necessary to produce a case of disabling or third stage silicosis within 15 or 20 years.

It is, therefore, with a feeling of reverence that we inspect a modern air-supplied helmet, because, if properly used, operators in casting cleaning rooms will not be exposed to any dangerous concentration of silicious dust. The use of steel grit or shot has further reduced the potentiality of silicosis. To be sure, the use of a supplied air helmet protects the operator irrespective of the type of abrasive used.

At present there are fifteen types of helmets, produced by eight different organizations, which have been approved by the U. S. Bureau of Mines. Incidentally, it is to be emphasized that the types of respiratory protective equipment mentioned refer only to equipment ap-

proved by the U. S. Bureau of Mines. Those who purchase, or supervise the use of respiratory protective equipment should insist on "approved equipment."

Blasting helmets are costly. Operators should be instructed not only how to use them, but how to store them when not in use. The greatest abuse seen in the field is

Supplied-air respirator and rope kept on side of degreasing tank. Air flow to this type of respirator should not exceed 20 feet per minute.



BENJAMIN F. POSTMAN is Industrial Hygiene Engineer, Accident Prevention Department, Employers Mutual Liability Insurance Company, New York City. This article has been adapted from a paper presented at the 23rd Annual Convention, Greater New York Safety Council.



a helmet thrown into a corner of the blasting room or on some sharp-edged castings. Some helmets are provided with suspension rings at the top of the head section, so that it may be suspended from a hook when not in use.

All air supplied to helmets should pass through a filter unit to remove oil fumes, moisture and other nuisance or toxic constituents common to compressed air lines. Some years ago, an operator in a blasting room was found dead, presumably from carbon monoxide which was generated when oil lubricated valves on a compressor became inoperative. This was the only answer advanced for this death. A fatality of this type is extremely rare.

As a result, some blasting helmets are provided with air from separate pressure blowers, utilizing shop or outdoor air. One such unit, called a clean air blower, not only compresses the air for the helmet but cools the air to remove the heat of compression, and then washes and humidifies this air.

Where helmets or other types of air-supplied units receive air which is too cool, creating a chilling effect on the head, neck or face of the operator, an air-line electric heater may be provided to heat this air before it enters the helmet or mask.

Data relative to the normal air supply for each type of helmet should be obtained from the manufacturer. The wearer of the helmet should be instructed to regulate the air supply valve so that at all times he will receive an adequate supply of air for breathing. Air ranging from 3 to 8 pounds per square inch in pressure will provide from 6 to 20 cubic feet of air per minute to the helmet.

### Dust Respirators

It is difficult to force personnel to wear any type of respiratory protection. Personalized indoctrination relative to the reason and necessity for wearing respiratory protection is sometimes a normal and/or a basic necessity. Use of respiratory protection for more than one-half hour at a time is not desirable. However, during a recent survey of a casting cleaning room, all operators using portable grinding units wore safety goggles and approved dust respirators all day long.

Local exhaust, either downdraft through floor grilles or on benches along the wall for the various sizes of castings, would considerably reduce exposure to excessive dust concentrations resulting from the use of portable grinding units. In another casting cleaning room, all of the operators wearing approved



Workers at Ferro Machine and Foundry, Inc., make full use of protective equipment. This swing grinder is wearing filter respirator, face shield and goggles.

dust respirators looked like dogs frothing at the mouth, due to the saliva dripping from the exhaust valve of the respirator.

Though portable grinding is considered a heavy-duty operation, an analysis of excessive labor turnover may determine the cause due to unfavorable operating conditions and not due to a lack of pay.

It should be remembered that the dust produced from the abraded wheel, which may be aluminum oxide or carborundum, with castings of grey iron or steel, are so-called nuisance dusts which do not produce silicosis or tuberculosis. When bronze or brass castings are processed, there is a potential lead exposure. However, the continual heavy dust concentrations produced by uncontrolled portable grinding units may aggravate a sinus, bronchitis, or asthmatic condition, which may become compensable. The liberality of some awards, based on ag-

To page 154



The best equipment may be useless in an emergency if employees are not instructed in its use. These employees of a public utility company are receiving instructions in respiratory protection.

# Proving Ground for Safety



Liquid propellant fires are a continued threat during active research and testing of guided missiles and long-range rockets. Here firemen at White Sands Proving Ground demonstrate proper method of subduing a fuel blaze.

**S**AFETY FIRST means more than a poster slogan at New Mexico's White Sands Proving Ground where military and civilian personnel daily handle gallons of highly toxic and flammable liquids, propellents for Ordnance guided missiles and long-range rockets. The materials handled include aniline, ethyl alcohol, furfuryl alcohol, hydrazine, nitric acid, hydrogen peroxide, and liquid oxygen.

Frank D. Mayes, civilian safety director, points with pride to the Proving Ground's record for the eight years. Since its activation, not a single fatal accident has been caused by the handling of liquid propellents.

The primary reason for the outstanding safety record of the installation, according to the director, is the particular training given personnel without which such handling of propellents might become routine, or repetitive. This creates a tendency to perform such operations in a perfunctory manner.

Training personnel in safe handling, storage and transfer of propellents is continuous at White Sands Proving Ground. Safety measures are not confined to training. Prior to the use of new operating processes or procedures, a study is made of all associated hazards. These are included, in plain, simple language, in a *Man-*

*ual of Safety Precautions for Missile Propellents*. The manual is brought up to date with the use of each new missile or propellant.

No one is permitted to carry flame or spark producing devices into any magazine or propellant storage area. Protective clothing is mandatory and extreme care is provided for the storage of fuels and oxidizers.

Most propellents used in guided missiles and rockets are liquid, stored in tanks or drums. As soon as propellents have been transferred to missiles, the tank or

motor truck, with remaining containers of propellents and empty tanks or drums are moved to designated places of safety before an operation or test is begun.

First-aid equipment and safety showers are among the standard equipment at all propellant operations. Special garments are provided for all personnel handling flammable liquids. Bib-overalls are of vinylite, polyethylene, or glass-coated fabric treated on both sides with vinylite. Such garments are impermeable to aniline, hydrogen peroxide, and nitrous

A heavy concrete retaining wall is standard equipment in missile fuel loading areas. In the event of system failure, the wall will contain spillage of propellant fuels and confine fire damage to immediate area.





Portable eye fountain for immediate bathing of eyes exposed to injurious liquids or toxic fuel fumes. The eye fountain is part of an emergency shower and operates from the same pressurized water tank. The unit is hitched to an Army vehicle for transportation to any location within the area. ("Dick" Whittington photo)



Portable emergency showers are always at hand in missile launching and technical areas. Ambulance and crew stand by for every missile shoot and static motor test.



Protective clothing for technicians handling flammable and toxic propellant fuels. Coveralls are of vinylite, polyethylene, or glass-coated fabric treated on both sides with vinylite. Seams are electrically sealed and covered with liquid plastic resistant to extreme temperatures. Hoods are double vinylite coated, with window for wide-angle vision, and chest length skirt gives further protection. Breathing apparatus is provided in case of aniline and hydrazine fires.

fumes. All seams are electronically sealed, or if sewed, the seams are covered with liquid plastic.

Coats are made of the same protective materials with zippered closures and are resistant to extreme temperatures. Gloves are of acid-resisting type, pure or butyl rubber, in 14-inch lengths and must be flexible and tight fitting to permit use on close operations. Gloves for use with liquid oxygen are of asbestos or similar materials having good insulating qualities.

Hoods, made of the same material as the other garments, are double vinylite coated. The hood has a large front window for wide angle vision, and a chest-length skirt for further protection. Boots are of natural or butyl rubber and of "over" boot design and extend upward to midway between the ankle and knees of the wearer. Breathing apparatus is provided in case of aniline and hydrazine fires which release toxic vapors.

Equipment and personnel of the Proving Ground fire department and U. S. Army Dispensary stand by during all missile and rocket operations in case of fire or accident.

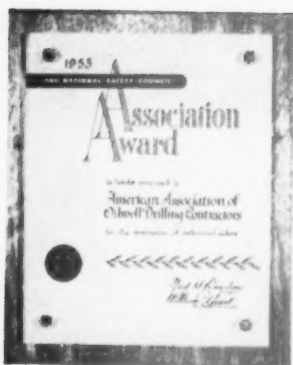
The safety director contends that aniline is the most treacherous liquid propellant since personnel may be injured by the chemical without knowing it. Aniline is toxic through inhalation of the fumes and can produce, in addition to all outward appearances of an alcoholic jag, death by chronic poisoning. Regular physical examinations are held for personnel handling such types of fuels and oxidizers.

Other safety officials rate nitric acid first on their danger list for liquid propellents. Nitric acid gives off a reddish brown gas which is highly toxic and can produce serious poisoning as a result of inhalation.

Hydrogen peroxide is another dangerous liquid handled daily at the Proving Ground. Non-flammable by itself, it is a strong oxidizing agent which actively supports combustion, or combustible materials, and must, therefore, be handled with extreme caution. Mixed with organic matter, it is sensitive to shock and is highly explosive.

Liquid oxygen is another non-combustible which can be danger-

— To page 150



Sample of plaque presented at the Congress to 11 industrial associations.

# Associations Win Awards, Too

By A. M. BALTZER

**Eleven groups honored by National Safety Council  
for promotion of safety within their industries**

**S**TORIES about industrial companies winning safety awards are no longer unusual, but it is news when an association representing an industry or a group of local industries achieves the same recognition. It is all the more noteworthy that out of 13 entries 11 associations qualified for the National Safety Council's Association Award in the first year under the official rules. Full honors were extended at the National Safety Congress when award plaques were presented by President Dearborn to officials representing the 11 winners. With these plaques go our heartiest congratulations for a job well done!

Since the idea of a safety award to associations is new, a word of explanation will be helpful to those interested in promoting greater activity within their industry or local group. The basic purpose of the award was to stimulate influential groups to reduce accidents in small companies. The award recognizes both achievement and effort, and also serves the following objectives:

1. Promotes more effective activity in existing association programs.
2. Stimulates other associations to encourage greater safety effort on the part of their members.
3. Helps collect association safety material, statistics and cost information

A. M. BALTZER is Director, Small Business Program, National Safety Council.

which will enable the Council to better serve all of its members.

4. Fosters more cooperation between associations and safety organizations like the National Safety Council and local safety councils.

The award is available to association members of the National Safety Council whose own membership consists of industrial employers. Even associations in the transportation field are eligible if they conduct specific safety programs for the prevention of employee injuries.

Although the ultimate objective is the prevention of injuries in small companies, the award is open to associations with member companies of all sizes. The fact is, a surprising number of associations are predominantly "small business." The various committees

which developed our official rules for the Award agreed that every encouragement should be given to associations which had recently started safety activities as well as recognizing those associations which had successful activities of many years standing. Similarly, associations with no elaborate safety organization have just as much chance to qualify as those with full-time safety personnel and sizeable safety budgets.

## Judging Wasn't Easy

Taking a tip from successful commercial contests, the judges gave no extra credit to elaborate entries; in fact some of the most expensive presentations reflected only a fraction of the achievement reported in one or two pages of typewritten material submitted by other associations. However, most associations submitted portfolios containing samples of their various publications, photos of other services and complete statistical reports covering their progress over the past five years.

Judging was done on the most objective basis possible, with the staff and members of the Council's Small Business Committee rating specific activities. Final rating and approval was given by the following Committee of Judges:

W. Dean Keefer, (chairman) vice-president, Lumbermen's Mutual Casualty Company.

William Barton, manager, Labor Re-

## THE AWARD WINNERS

American Association of Oilwell Drilling Contractors  
American Foundrymen's Association  
American Gas Association  
American Petroleum Institute  
British Columbia Lumber Manufacturers Association  
Dominion Brewers Association  
Drop Forging Association  
Institute of Industrial Launderers  
Manufacturers' Association of Montgomery County  
Pacific Coast Association of Pulp & Paper Manufacturers  
U. S. Brewers Foundation, Inc.



Protective clothing modeled at safety consultation booth during a convention of American Foundrymen's Society.

lations Department, Chamber of Commerce of U. S.

Al Larke, Employer Relations editor, *Duns Review* and *Modern Industry*.

Thomas M. Brennan, vice-president in charge of Inter-association Relations, National Association of Manufacturers.

S. R. Christophersen, president, Smaller Business of America, Inc.

Reuel Elton, manager, American Trade Association Executives.

Rating was based on the percentage system in Table I. The number of associations engaged in various activities is indicated.

### Success Stories

The programs and achievements of many nationally known associations were very familiar to professional safety men; however, many of the more active associations did not elect to apply for the award this year. More surprising were the entries of several associations with new and unpublicized activities—many of the entries revealed an amazing variety of successful activities. Most of the associations could boast of successful programs developed by volunteer committees while others had a chance to build up sizeable staffs and budgets within a year or two.

The accident experience of association members was based upon frequency rate reduction in the past five years or in the previous year, and also recognized the industry reduction compared to the all-industry reduction in the past five years. It was encouraging to note that of 12 associations which submitted figures the average reduction in frequency over the past five years was 46 per cent. The Pacific Coast Association of Pulp and Paper Manufacturers could boast of an 81 per cent reduction in frequency rate since their program started in 1946. Others, including the U. S. Brewers Foun-

—To page 64



TABLE I — SYSTEM OF RATING

I. Accident Experience—25% Maximum Credit	
II. Safety Activities—15% Maximum Credit	
1. Staff personnel—full time (3 associations)—part time (9 associations).	
2. Committees—meet regularly (12 associations)—infrequently (2 associations).	
3. Urging members to safety activity (18 associations).	
III. Service to Members—15% Maximum Credit	
	No. of Associations
1. Contest and Awards .....	12
2. Collection of statistics .....	16
3. Consultation on safety courses .....	13
4. Library or lending service .....	12
5. Other .....	5
IV. Safety Publications for Members—15% Maximum Credit	
1. Manuals for management .....	13
2. Rulebooks or cards for employees .....	8
3. Posters—special .....	10
4. Films, Safetygraphs, other visual aids.....	7
5. Other .....	13
V. Publicity—15% Maximum Credit	
1. Articles in trade, press or national mag. ....	16
2. Local newspaper stories .....	12
3. Safety talks at conventions or special meetings.....	18
4. Exhibits at conventions or safety conferences.....	10
5. Other .....	4
VI. Cooperation With Safety Agencies—15% Maximum Credit	
1. Service on national or local com. ....	13
2. Submission of statistics to members and others.....	14
3. Assisting other associations .....	15
4. Collaboration on publications .....	12
5. Other .....	1

# No Mystery About Chain Failures

By N. J. GEBERT

**There are some things that shouldn't happen to any chain sling, but they keep on causing accidents**

UNNECESSARY punishment, caused by incorrect loading and lifting, shortens the life of many a sling chain. Chain failure is often accompanied by accidental death or crippling injury and damage to property.

Let us investigate and analyze some of the causes of failure of a perfectly good piece of chain in the field. The causes can be listed in this order:

1. Overloading.
2. Angular pull where deceiving loads are experienced.
3. Bad hook-up and careless handling.
4. Impact Loadings.
5. Wear, Abrasion, Markings and Distortion.

## Overloading

Considering these items individually, we first will take up overloading. No intelligent workman will deliberately overload a chain it is assumed, but continual use of any piece of equipment breeds trust in its operation and often carelessness. Let's say a chain that will carry five tons—the operator may think that possibly six would not do it any harm, and if six does not break it, he is liable to try seven. This is a most common cause of failure.

*Estimate loads on the heavy side.*

In estimating the loads to be lifted, a little care in computation of weights will pay large dividends in safety. It is certainly wise to learn to estimate on the heavy side and choose your chain accordingly. An error in judgment here may cause the loss of some life, the blighting of some family, and the

expense of replacement of damaged property, all of which are close to the mind and heart of the safety engineer.

## Angular Pulls

Next to deliberate overloads, let us consider what it means to pull a load at an angle. Pulling at an angle greatly increases the stress in the chain, especially if the load will not tend to slide in line with the lift. If a load directly under the crane hook is lifted, the stress in the chain is the weight of the

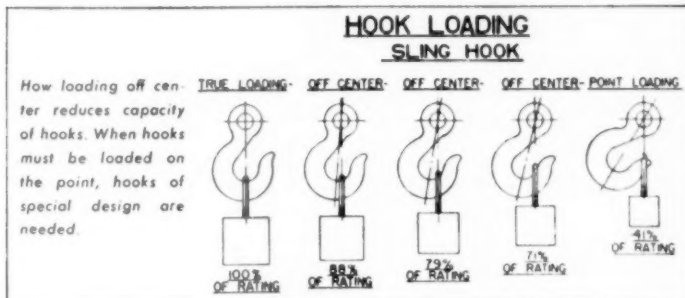
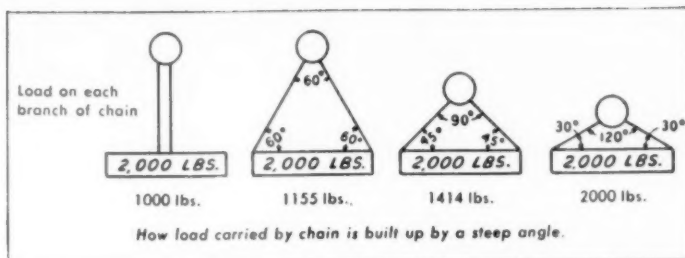
piece to be handled. When lifted at an angle, the stress in the chain will be greatly increased.

For example, lifting 10,000 pounds directly places 10,000 pounds of stress on the Sling. If it is lifted at an angle of 45 degrees to the horizontal, there will be a stress of 14,200 pounds in the chain. This is, as you see, nearly 50 per cent increased loading. Should this same weight be lifted at an angle of 30 degrees to the horizontal, there will be 20,000 pounds stress in the chain, or ex-

Alloy chain has high strength in proportion to its size.



N. J. GEBERT is Chief Metallurgist, American Chain Division, American Chain and Cable Co., Inc., York, Pa.



actly double the weight of the load lifted. From this you can see that an angular pull really means something as a pull of 30 degrees from horizontal or 60 degrees from vertical doubles the load.

### Bad Hook-Up and Impact Loading

Faulty hitches, slipping hook-ups and shock lifting all add to normal wear and speed failure. Points to stress in instructing workers are:

1. Set load at the bottom of the hook. Loading hooks on the point will weaken or distort them. When point loading is unavoidable, specially designed hooks must be used.
2. Balance the load as evenly as possible on all legs of the chain. Off-center loads not only place added stress on one or more legs, but may easily slip and fall when lifted.
3. Avoid shock loading. This is something that, while it possibly cannot be entirely eliminated, can be taken care of, to a large extent, by a little care

in operation. Sudden lifts or yanking of the crane, slipping loads, and unnecessary swinging loads are directly responsible for abnormal loadings on slings and cranes. Cranes usually are massive and the impact can be absorbed quite readily, but the chain being very light in structure in comparison with the load lifted, cannot withstand the impact loadings repeatedly without causing failure.

4. Never tie a knot or use an I-bolt to shorten chain. The practice, and that of doubling the chain around a load, place unnatural loads on the links and prevent the chain from absorbing and distributing the weight.

### Wear, Abrasions, Markings and Distortion

From visual inspection of chain only, wear is not very perceptible since it takes place between the links at a point where the links must be lifted off their seat to be seen. In the inspection, the section of the chain which has had the hard use should be examined

for wear by lifting the links up. The accompanying table shows the allowable wear and the minimum safe dimension at the worn part of the link.

Abrasion, such as scraping on concrete floors etc., which puts the scratches lengthwise to the chain are not too harmful. Cross-markings of a link, caused by nicking and wrapping around a very sharp object, should be inspected with caution as they are dangerous, particularly if the link has been bent at this marking.

With a safety program and a good inspection system, sling chains can be operated with entire safety and particular observance to the above rules should help in establishing a good safety program.

### Lunch-Hour Inspections Can Be Revealing

Scheduled inspections are important in any safety program but an occasional informal, unannounced trip through the plant will often reveal some unusual items. The lunch period is a good time for such trips.

Here are a few hazards to health and safety, according to North American Aviation, Inc.:

1. Unsanitary disposal of food scraps.
2. Slipping hazards from refuse on floor.
3. Improvised barbecues, roasting weiners over lead or solder pots.
4. Heating food around dipping tanks.
5. Electrical hotplates in isolated corners for heating coffee.
6. Food containers, milk and soft drink bottles containing hazardous chemicals.
7. Drinking water from non-potable sources of supply.
8. Fragile glass containers in which food may be oven-heated and may explode due to tight lids.
9. Persons working with toxic materials who fail to wash their hands before eating.
10. Running and horseplay.

TABLE OF WEAR

Trade size of chain	Actual stock diameter new (A)	Minimum permissible wear (B)	Mini. safe dimension worn part (C)
1 1/4"	9 32"	3 64"	15 64"
3/8"	13 32"	5 64"	21 64"
1/2"	17 32"	7 64"	27 64"
5/8"	21 32"	9 64"	33 64"
3/4"	25 32"	5 32"	5 8"
7/8"	29 32"	11 64"	47 64"
1"	1 1 32"	13 64"	53 64"
1 1/8"	1 5 32"	3 16"	31 32"
1 1/4"	1 9 32"	7 32"	1 1 16"



**Demands for storage space require fork trucks to pile loads higher. Here are some points on maintaining stability**

## How High Can a Fork Truck Reach?

By HAROLD MILZ

**R**ISING CONSTRUCTION costs and in some cases the impossibility of building new or additional storage facilities, makes it necessary to stack materials in storage as high as is practical and safe. This urgency has often resulted in placing a premium on

the stacking heights of fork trucks without due regard to the hazards and limitations involved.

It is general practice to leave the problems of fork truck stability to the manufacturer. Generally, the conditions of operation are outlined and a truck is designated that will do the job. This is sound practice and works out well—if the original job specifications are complete and are accurately de-

termined and transmitted. Many times overlooked is the fact that lighter loads can cause stability trouble if those loads are longer than anticipated, or if they are odd shapes and their centers of gravity fall too far forward. It is also true that heavier loads may put undue strain upon tires, brakes, wheel bearings and the hydraulic system.

A fork truck carries loads ahead of wheels in cantilever fashion. Therefore, the downward force is in front of, not over, the points of support. The fork truck can be considered as a simple lever, Fig. 1, with the center of the front drive wheels acting as a fulcrum point between the load and the counter-balancing action of the truck.

Thus, the trailing moment—the truck weight back of the forward wheels,  $D$ , multiplied by its lever arm,  $C$ —must always be appreciably greater than the forward moment—the load weight,  $A$ , multiplied by the length of its lever arm,  $B$ . Or  $C \times D$  must always exceed  $A \times B$ . If it does not, the truck tips forward.

The principal factor determining the load that can be transported and tiered is the amount of weight remaining on the trailing wheels when the loaded truck is tilted fully forward at the extreme of its lift capacity.

It is a simple matter to assure sufficient weight remaining on the trailing wheels either by increasing the truck wheelbase or by increasing the counterweight, or both. However, wheelbase length is increased only at the expense of maneuverability. Aisle widths do not usually permit unlimited wheelbase extension.

The weight that can be carried on the trail axle is likewise limited. It is limited not only by axle design but the amount of effort and the number of hand turns that can be expected of an operator, unless power-steering devices are provided. Steering becomes too difficult for good operation when trail weight exceeds 7,500 pounds.

HAROLD MILZ is Chief Engineer for the Mercury Manufacturing Company, Chicago.



An overhanging load on a fork truck creates a forward overturning tendency. The tendency may be calculated by multiplying the load weight by the distance from the fulcrum point, or center of the forward wheels, to the load when elevated and fully tilted forward. Such a project is called the overturning moment, and is expressed in units of inch-pounds.

In order to determine trail wheel weight required for adequate stability under all normal operating conditions, it is necessary to calculate the overturning moment.

An overhanging load on a fork truck creates a forward overturning tendency. The tendency may be calculated by multiplying the load weight by the distance from the fulcrum point (center of the forward wheels) to the load when elevated and fully tilted forward. The product is called the overturning moment. It is expressed in units of inch-pounds.

For convenience in calculation, overturning moment is divided into three parts: (1) load moment, (2) loss moment, and (3) tilt moment. Added together they produce the overturning moment.

*Load moment* is the product of the load weight and one half of the load length, measured parallel

to forks. Load moment is one of the terms commonly used to define the capacity of the truck.

*Loss moment* is the product of the load weight and the distance from the fork face to the drive wheel center measured with the mast in vertical position. This dimension is constant for any one truck model.

*Tilt moment* is the product of gross weight of the pay load times maximum fork elevation times sine of forward tilt angle. This value is approximate because the height is measured to the fork level rather than to the vertical center of the load. However, it is accurate enough for all practical purposes.

The next step is to calculate the amount of weight subtracted from the trail wheels under specified conditions. This is done by dividing the overturning moment by the truck wheelbase.

Questions which naturally follow are: Is the weight adequate for safe operation under normal conditions? If not, how much additional weight is required?

Up to this point we have been concerned only with static stability. However, actual use of the truck involves movement and this requires consideration of additional dynamic forces. Movement

may include bringing the truck to a quick stop when carrying the load at slightly elevated position, or cautious maneuvering in tiering operations. It does not allow for traveling at full speed with load elevated—a practice prohibited by all safety programs. These forces require additional weight on the trail wheel.

Dynamic forces are more difficult to determine than simple overturning moments. They require a knowledge of the exact location of the combined center of gravity of truck and load, as well as the exact rate of deceleration.

When stacking is done up to 12 feet, which covers the largest percentage of all trucks, a simple empirical formula works out well in practice. The additional trail weight required to offset these forces equals one-tenth of the load, plus 600 pounds. This 600 pounds is constant, regardless of load weight.

In those rare cases where higher lifts are involved, additional consideration must be given to the serious problems of stability that are created.

We can now refer to manufacturer's literature or make inquiry to determine whether the truck

—To page 163

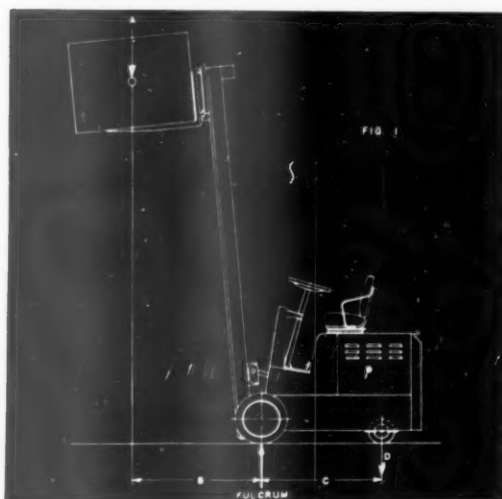


Figure 1. The fork truck can be regarded as a simple lever. The center of the front drive wheels acts as a fulcrum point between the load and counterbalances the action of the truck.

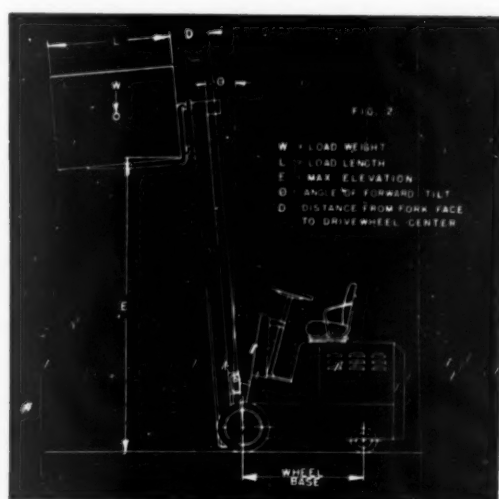


Figure 2. Multiplying load weight by distance from fulcrum point to load when elevated and fully tilted forward gives overturning moment.

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Elected at the 41st National Safety Congress

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## Harriman Awards Presented

THREE AMERICAN RAILROADS which achieved the best passenger safety records for 1952 received E. H. Harriman Memorial Gold Medal safety awards. Presentation took place at a dinner in the Hotel Ambassador, New York, on September 17. Special "certificates of commendation" were presented to 11 other railroads for outstanding safety performance.

The gold medal for group A railroads went to the Missouri-Kansas-Texas; for group B, the St. Louis Southwestern; and for group C, the Texas Mexican. Railroads are classified according to size, with group A representing the largest railroad companies.

Competition among railroads for 1952 safety honors was quite spirited, since the industry last year set a new safety mark, said James G. Lyne, editor of *Railway Age* and chairman of the Harriman Award Committee, in commenting on the awards. He pointed out that railroads last year not only surpassed their own previous best record but also exceeded the best safety mark ever set by any comparable form of transportation.

The following railroads received certificates of commendation:

Eastern District: Group A—The Baltimore & Ohio; Group B—Lehigh Valley; Group C—Lehigh & Hudson River.

Western District: Group A—Union Pacific; Group B—Duluth,

Missabe & Iron Range; Group C—Lake Superior & Ishpeming.

Southern District: Group A—Norfolk & Western; Group B—Central of Georgia; Group C—Atlantic & Danville.

Certificates of commendation also were awarded to the following switching and terminal companies (one for the group comprising large Companies and another for the group comprising smaller companies): Group ST-1—Chicago Union Station; Group ST-2—Portland Terminal.

The E. H. Harriman Memorial Medals, founded in 1913 by the late Mrs. Mary W. Harriman in memory of her husband, Edward H. Harriman, have since been continued by her sons, W. Averill Harriman and E. Roland Harriman. They have been awarded 34 times by the American Museum of Safety.

At the dinner meeting Lyne presented the awards and Cyril Ainsworth, president of the museum, presided. Ainsworth also presented the Arthur Williams Memorial Medal for individual achievement in the field of safety to Jerome Lederer, managing director of the Flight Safety Foundation.

The Harriman awards are determined on the basis of official records of the Interstate Commerce Commission, railroads being ranked in their several groups according to size and their individual safety ratings.

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*Secretary of the Trustees*—Ned H. Dearborn, president, National Safety Council, Chicago.

### Members

Members of the Board of Trustees elected for three-year terms were:

—To page 142

Broadcasting Company, Inc., Central Division, Chicago.

C. H. Weiser, plant personnel supervisor, Southwestern Bell Telephone Company, Topeka, Kan.

Mrs. George Welles, Jr., Duluth, Minn.

Dr. George M. Wheatley, third vice-president, Metropolitan Life Insurance Company, New York.

E. L. Wheeler, president, Wheeler Protective Apparel, Inc., Chicago.

Dr. William P. Yant, director of research and development, Mine Safety Appliances Co., Pittsburgh.

Charles M. Ziegler, Michigan State Highway Commission, Lansing, Mich.

**That unimportant looking can of paint in the maintenance shop can provide better seeing, warning against hazards, and an important psychological lift to those who work in the plant**



## Out of the Gray

By N. A. MASON

**C**OLOR dynamics, like aerodynamics, is a science. It is the science of putting color to work in the form of a specific force. Since color as we see it is solely a response of the observer, it must influence a psychological reaction since the stimulation is mental. These psychological reactions to color are directly associated with the end results to be obtained. In our case we want to use color as a safety tool.

Color is also subjective. It is a personal response to a mental sensation. With this in mind it is necessary to consider the entire environment of the worker if we are to understand how color can be used as a tool in the safety program.

Until the general recognition of color as a psychological force

during the early months of World War II, most industrial engineers responsible for maintenance of the physical plant were primarily interested in paint as a protective coating.

As a result of this thinking, machines and machine tools were finished at the factory with varying shades of gray gloss enamel. The dark color effectively camouflaged dirt and grease accumulated from day to day, and the high gloss finish prevented oil absorption and made the few attempts at machine cleaning comparatively easy. The operator of the machine was never considered, nor was the work environment in which the machine was located. This attitude would be considered sound and acceptable, provided all machines were completely automatic and did not require the attention of a human being to secure maximum production.

Considering other influencing factors related to work environment, most ceilings, and side walls to contact height, were painted

white to secure maximum light reflection. The contact area: doors, trim and wainscot were painted a dark color to camouflage dirt, grease, smudges, etc. This often minimized the ineffectiveness of those responsible for house-keeping, but did not contribute to a healthy or safe work environment.

The average American worker of today is by far more demanding than his brothers of the 20's and early 30's. They will not tolerate such working conditions, especially those responsible for employee-employer relations.

To evaluate color as an environment factor, and its relation to safety, here is a typical case history:

Suppose we have a large plant engaged in machine tool work, such as milling parts for a complicated machine. The ceiling and upper walls are white, the wainscot, doors and trim dark gray, and the machines in Standard Machine Tool Gray 7-B; or the new ASA 49 gray. Lighting is good,

N. A. MASON is Manager, Maintenance Painter Sales, Pittsburgh Plate Glass Co., Pittsburgh, Pa. This article was prepared from a paper given before the Greater New York Safety Council's 23rd Annual Safety Convention, New York.





delivering 25 foot-candles at the work level. Machines are arranged in rows parallel to the walls, and the operators are facing the wall.

Since the job requires visual acuity, let's examine work conditions as related to the worker; in other words, we will evaluate the effect of environment in relation to seeing conditions, eye fatigue, nervous tension, absenteeism, production quality and quantity, and safety.

Thinking of visual comfort first, the light reflection of the dark gray machine color is about 5 per cent. That is, 5 per cent of the light striking the surface adjacent to the visual task is reflected; or only 1/20th of the available light for seeing reaches the eye. Naturally, such a condition would require concentrated seeing effort at the point where the machine work is being done.

Working under such visual strain the worker must look up from the job occasionally in order to rest his eyes. As he does, the white wall becomes the focal point. The amount of light reflected from the white wall is approximately 85 per cent of that striking the surface. In comparison to the job, the ratio of brightness is five to 85 or one to 17. The brightness contrast is so great, eye adjustment is necessary before good visual acuity is secured. Eye

muscles must reduce the size of the pupil in order to adjust the amount of light entering the eye as the worker shifts his glance from the job to the wall. This takes time.

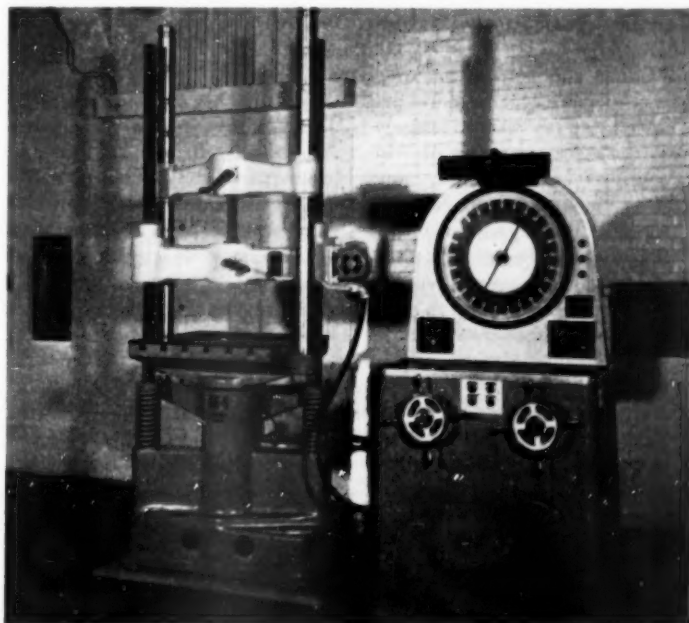
The adjustment may be compared to the experience of coming from a movie theater out into bright sunlight. The shock is not as great, but the reaction within the eye is somewhat the same. As the eye returns to the job, a re-

An artist's imaginative but not exaggerated interpretation of the transformation effected by scientific application of color. Point of operation on each machine was highlighted and seeing conditions improved generally. And improved visibility and appearance undoubtedly inspired better housekeeping. The interior in the facing page is in the usual machine gray. This one has a blue green ceiling, yellow pillars, dark and light gray floor, vista green machinery, and traffic lanes and cart in focal orange.

verse reaction takes place within the eye. I am sure you can appreciate the effect such an adjustment would have on a person hour after hour, day after day. Eye fatigue and nervous tension are sure to develop, and as this reaction increases, the operator leaves the job for a few minutes; production slows down, and under this physical strain the worker is more susceptible to an accident.

How can we correct this condition with color, and not adversely affect the fixed factors of machine placement, and the level of illumination; both cost factors in an operation?

*To page 160*



How properly applied color can make operating parts of machines stand out is shown in this example from the machine shop at Carnegie Institute of Technology.



Exhibit of welding and personal protective equipment at Massachusetts Institute of Technology.

# Facts About Welding

By H. F. REINHARD

Years of experience in acetylene welding have established safe procedures. Following them will mean safer operation

**W**ELDING and cutting operators enjoy health comparable with that of the general, industrially employed, population and their trade is not to be considered a hazardous one. This observation is supported by cumulative experience and research in the medical field.

Welding and cutting manufacturers safeguard modern welding equipment to an exceptional degree. Fire protection in the industry now depends mainly upon training and supervising each operator and developing in him a working knowledge of his apparatus for both normal and possible abnormal conditions.

Gases and equipment should always be handled in accordance with instructions of manufacturers and regulatory bodies, and with prescribed training course techniques given qualified oxy-acetylene welding or cutting operators.

Although flame cutting and some

types of welding are done with propane, city gas, or hydrogen, gas welding usually means using oxygen and acetylene. Since principles involved, and nature and operation of equipment, are similar, only oxy-acetylene operations will be considered.

## Oxygen Cylinders

In fully charged cylinders at 70 degrees F., oxygen is usually under pressure of about 2,200 pounds per square inch. This pressure must be reduced at the cylinder valve outlet by the pressure-reducing regulator which not only reduces cylinder pressure to desired line pressure, but maintains a steady pressure at the blowpipe.

This regulator is fastened directly onto the cylinder valve. In connecting the cylinder valve to the regulator, the valve must be opened momentarily, then closed, to blow out any dust that may be lodged in the cylinder valve. Some omit this "cracking" process with hydrogen. The connecting nut between regulator and valve is attached and properly tightened. The operator makes sure the pressure-adjusting screw of the

regulator is released, that is, turned counter-clockwise (to the left) until it turns freely. Then, particularly with oxygen, he opens the cylinder valve slightly so the high-pressure gauge moves up slowly. The oxygen cylinder valve should never be opened suddenly.

In connecting up the blowpipe, hose lines should have any dust blown out of them before attaching so dust will not be carried into the blowpipe.

Care must be taken to attach hose from the oxygen regulator to the oxygen connection on the blowpipe. Connections are marked to indicate which are for oxygen. *Oxygen connections have right-hand threads* and most hose manufacturers use green as standard color for oxygen.

No leakage should be permitted. Oxygen, physiologically helpful rather than harmful, causes clothing and other combustibles to burn much more rapidly. The best test for oxygen enrichment is the oxygen analyzer, since oxygen is odorless and cannot be seen or tasted.

Oil and grease may react violently with oxygen under high

H. F. REINHARD is secretary of the International Acetylene Association. This article has been adapted from an address given before the recent Annual Convention of the National Welding Association at Cincinnati, Ohio.

pressure and all oxy-acetylene equipment should be kept free of them.

When using oxygen with any fuel gas, it should be remembered that the fuel gas forms explosive mixtures with oxygen or air, and no such mixtures should be permitted prior to consumption, except at the burner, in a standard blowpipe, or a similar device specifically approved for this purpose.

Cylinders of oxygen should not be stored close to cylinders of fuel gas unless there is a fire-resisting partition between them.

Oxygen should never be called *air*; and oxygen under pressure in a cylinder should not be called compressed air. Misunderstandings from this practice have caused serious accidents. Compressed air is often and properly used as a pressure-imposing medium in starting diesel engines. Oxygen cannot be substituted for compressed air in this usage. Disaster will certainly follow.

#### Acetylene

Acetylene with oxygen produces flame having a far higher temperature than that of any fuel gas used for welding or cutting. Acetylene is not a poison, but is an anesthetic if used in high concentrations. If it displaces too much oxygen in the air, asphyxiation could result. However, the lower explosive limit of acetylene in mixtures with air is about 2½ to 3 per cent. It is obvious that where welding flame or other source of ignition is present, an explosion would occur long before concentrations of anesthetic proportions could be developed.

Acetylene should never be brought into contact with unalloyed copper except in a blowpipe tip. Explosive copper acetylide may be formed.

Acetylene, made from calcium carbide on the North American continent, contains such slight quantities of hazardous impurities that they may be disregarded.

Manufacture or use of liquid acetylene is prohibited in most regulations.

## Leads Drive on Old Ice Boxes



The Pasadena (Calif.) Chapter of NSC was instrumental in promoting a "Death Trap Round Up," aimed at collecting old ice boxes and refrigerators in the San Gabriel Valley. Refrigeration Service Engineers Society aided the NSC Chapter, to prevent repetition of sequence of tragedies when abandoned ice boxes claimed 11 young victims in one month. The association rendered 500 boxes harmless, gathered 50 to dispose of at city rubbish yards. Left to right: E. W. Moore, society's safety committee chairman; J. E. McDowell, in charge of city refuse disposal; Lester G. Bock, Pasadena Safety Council director, and John H. Clark, of the refrigeration society.

Acetylene in cylinders is probably most convenient. Where cylinders are to be manifolded, the manifolds should be purchased from a manufacturer who has full knowledge of construction requirements and necessary precautions that must be taken.

Cylinders must be protected against rupture from excessive pressures caused by gas expansion in heating and in temperature rises which might occur in a burning building where cylinders are stored.

Interstate Commerce regulations require each welding gas cylinder be equipped with one or more safety devices to prevent explosion of a normally charged cylinder when in a fire. These devices must be approved as to type and location by the Bureau of Explosives.

They are maintained by the gas supplier and users must not tamper with them. The pamphlet, *Safety Relief Device Standards*, by the Compressed Air Association, specifies these devices.

Acetylene should never be used, or generated, at pressures in excess of 15 pounds per square inch gauge, as free acetylene at greater pressures may decompose violently.

This does not apply to storage of acetylene in cylinders built to ICC specifications where acetylene, although under pressure greatly in excess of 15 pounds per square inch, is actually dissolved in a solvent contained in the porous mass with which the cylinder is filled. The International Acetylene Association gives information

—To page 68

# THE ACCIDENT BAROMETER

Prepared by the Statistical Division, National Safety Council

ACCIDENTAL DEATHS in July numbered approximately 9,300, a reduction of 1 per cent from July a year ago. There was a decrease in deaths from public non-motor-vehicle accidents but an increase in home accident fatalities. Deaths from motor-vehicle and occupational accidents numbered about the same as in 1952.

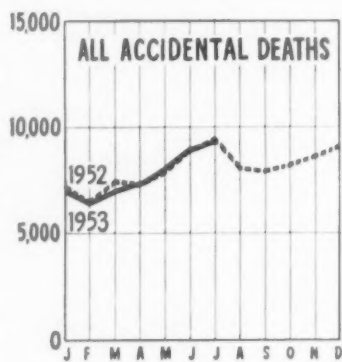
During the first seven months of 1953, accidental deaths totaled about 53,100, a decrease of 2 per cent from last year. A small increase was recorded in motor-vehicle deaths. Other classes showed decreases with the largest change reported in public non-motor-vehicle fatalities.

## Motor-Vehicle Deaths

The July total of motor-vehicle deaths was 3,120, no change from July, 1952.

Deaths for the seven months numbered 20,420, or 2 per cent more than the 1952 comparable total of 19,950. The seven-month death rate per 100,000,000 vehicle-miles was 6.5, a reduction of 3 per cent from the 1952 comparable rate of 6.7.

Of the 47 states reporting for seven months, 18 had fewer deaths than in 1952 and 29 had more deaths. Reporting cities with populations of more than 10,000 had a reduction of 11 per cent for July, but an increase of 6 per cent for the seven-month period.



	1953	1952	Change
July	9,300	9,400	-1%
Seven Months	53,100	54,400	-2%

Regional changes from 1952 in the seven-month death totals were:

North Atlantic	+7%
South Atlantic	-1%
North Central	+5%
South Central	-4%
Mountain	+2%
Pacific	-1%

## Occupational Accidents

Deaths from occupational accidents numbered about the same as in July last year—1,400. The total for seven months was 8,300, a reduction of 2 per cent from 1952.

The July frequency rate for plants in community council contests was 7.11, a decrease of 17 per cent from last year. The July rate for plants in fourteen sectional accident prevention contests conducted by the National Safety

Council was 6.71, a reduction of 2 per cent. The seven-month rate in community council contests was 7.23, a reduction of 14 per cent; while in sectional contests it was 6.47, a decrease of only 5 per cent.

## Public Deaths

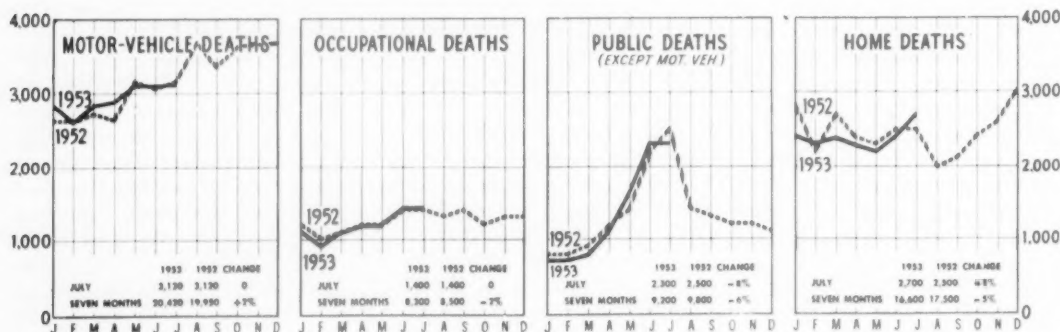
Public non-motor-vehicle accidents in July resulted in approximately 2,300 deaths, or 200 fewer than last year.

The January-July death total was 9,200, a reduction of 6 per cent from 9,800 in 1952. There was a moderate decrease in unclassified public accidents and small decreases in deaths from transportation and firearms accidents, drownings and falls. A sizable increase occurred in fatal burns. Most of the decrease occurred among persons 65 years and over, but deaths of children under 15 years and persons in the age groups 25 to 64 years also were fewer.

## Home Deaths

The home accident death toll for July was 2,700, an increase of 8 per cent over last year.

The death total for seven months was 16,600, or 5 per cent less than in 1952. There were moderate reductions in unclassified home accidents, poisonings and burns and small decreases in falls and mechanical suffocation deaths. Deaths from firearms accidents showed little change from last year. There was a small increase in deaths of children 5 to 14 years old. Other age groups showed decreases with the largest change recorded for persons 25 to 44 years of age.





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The K-LENS-M Lens Cleaning and Anti-Fogging Station is a compact unit for efficient use by your workers. The cabinet contains the K-LENS-M Lens Cleaner; K-LENS-M lint-free Lens Tissues, with disposable space; and the K-LENS-M Anti-Fogging Liquid attachment. Endorsed by Safety Engineers. Used regularly by leading manufacturing plants, packing houses, canneries, public utilities, government installations, foundries and business offices throughout the world.

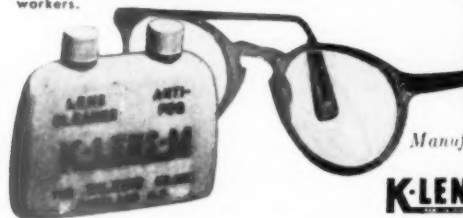
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# THE SAFETY VALVE



Nothing human is alien to me.  
—TERENCE

## Accent on Youth

THIS ISSUE had to go to press just as the 41st National Safety Congress was getting under way, so the Congress story stops with the Annual Meeting. More next month, with pictures by the Council's ubiquitous staff photographers.

If you were there, you'll agree that this year's Annual Meeting was one to remember. This was my thirty-first Congress and I have to admit I can't recall much of what went on at most of the past meetings. There have been keynote addresses by prominent men and women, many of them inspiring and eloquent, but the programs followed a definite pattern.

But presentation of a federal charter is a once-in-a-lifetime event. It was done in a ceremony befitting the occasion. When Congressman Clifford Davis pulled aside the curtain on the spotlighted stage and revealed the beautifully engrossed and illuminated charter, everybody in the Grand Ballroom felt proud to be associated with the organization that won this official recognition.

The illness of the Honorable Ivy Baker Priest, Treasurer of the United States almost upset the program. But Mrs. Priest, fortunately for the Council, was able to send a most competent substitute—her 17-year old daughter, Patricia. After reading her mother's prepared address she added a few comments of her own, with a plea for better understanding and training for teen-agers to equip them for the motor age.

Last year, you may remember, it was a charming miss from Nebraska who stole the show at the Annual Meeting, ably assisted by Frank Kreml. Well, it's a real satisfaction to know that the generation represented by Ned Dearborn, Paul Jones and myself is going to be succeeded by one that is developing a lot of safety-minded young folks.

## The Machine's Warning

POETRY—real poetry, that is—seldom touches upon the subject of safety, says a clipping from *Labor and Industry Review* (Pennsylvania) sent in by a reader.

"Somehow," the editorial goes on, "machine guarding and lifting practices designed to protect the sacroiliac haven't seemed to inspire immortal

expression. But Rudyard Kipling came through with his usual vigor."

In *The Secret of the Machines* Kipling gives a tongue to the mechanical marvels of his day. The poem speaks of their achievements, and then machinery utters this unforgettable warning—a common truth, expressed with uncommon effectiveness:

*But remember, please, the law by which we live.  
We were not built to comprehend a lie.  
We can neither love nor pity nor forgive.  
If you make a slip in handling us—  
You die!*

\* \* \*

There is no limit to the interest which civilized nations have in each other's economic and political wisdom, for they all bear the consequences of each other's follies.

*William Graham Sumner (1879)*

## In This Issue

WITH JUVENILE DELINQUENCY a matter of growing concern throughout the country, the topic of this month's *Diary of a Safety Engineer* is quite timely. The plan described wouldn't work in every case but many a youngster could be kept on the straight and narrow if he had an outlet for his skills. (Page 20)

\* \* \*

When the workroom air isn't fit to breathe, better ventilation should be the ultimate goal. But often it isn't immediately practicable and there are always brief exposures and emergency situations. Respiratory protection represents a relatively small but highly important phase of accident prevention. (Page 24)

\* \* \*

For the past two years the Council's program for associations and small businesses has been gathering momentum. Many groups have been conducting effective campaigns in their industries and these achievements have been recognized by the Council. (Page 28)

\* \* \*

Colors for industrial interiors are no longer selected for their ability to camouflage dirt. Lighter, brighter tints give a lift to the people who work there, stimulate better housekeeping, and make it easier to see both work and hazards. (Page 36)

\* \* \*

Welding is a universal operation in industry. You'll find a torch and cylinders of acetylene and oxygen in every type plant from the largest down to the corner garage. Herb Reinhard, who knows every angle of the subject, describes the basic practices that make the work safe. (Page 38)

*Carman Fisk*



*In A Fire Emergency..*

**ALL HANDS ARE "SKILLED HANDS"**

WITH

# **ANSUL** DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT

With Ansul Extinguishers near-expert results are obtained by inexperienced operators. In fact, all Ansul Extinguishers are designed to provide a maximum of extinguishing effectiveness in the hands of inexperienced personnel.

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# SMALL BUSINESSES and ASSOCIATIONS



By A. M. BALTZER

Director, Small Business and Associations Program, NSC

## Staff Increased

The increased grant by the National Association of Mutual Casualty Companies enabled the Council to expand its small business program. Robert D. Currie recently joined the staff of the National Safety Council to assist A. M. Baltzer in carrying out future plans for small businesses.

Before joining the Council staff Mr. Currie was a member of the Hartford Accident and Indemnity Company's Engineering and Survey Department where his assignments included safety engineering and insurance analysis. This experience brought him into close contact with the accident problems of small companies in many varied industries. He is a graduate of the College of Engineering, University of Illinois.

Our plans for the future call for expansion of the more successful activities and for the start of new ones such as:



Robert Currie, Senior Engineer, Industrial Department, assigned to the Council's Small Business Program.

- To develop more promotional material
- To collect more statistics and cost information
- To give more help in specific areas
- To extract more information from small business that will serve as a guide to determine specific needs

and to gauge results of our program.

## Abandoned Refrigerators

The Refrigeration Service Engineers' Society and several other associations have been publicizing the hazard of abandoned refrigerators for several years. The highly publicized series of deaths during the past summer made it possible to step up the campaign against this hazard at both the national and local level.

On September 3, the Council and ASSE met with representatives of RSES, the Refrigeration Advisory Committee and the Air Conditioning and Refrigeration Institute to discuss various approaches to the problem. A full story will be released later but it is encouraging to know that there has been excellent cooperation between local units of RSES, ASSE and local chapters of the National Safety Council.

Those interested in specific activities should get in touch with local safety councils, refrigeration maintenance companies or your reporter.

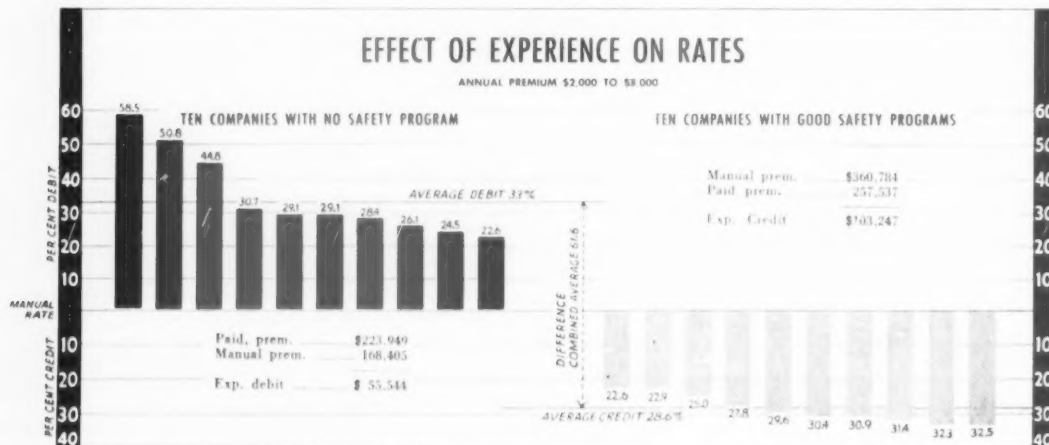
## Pennsylvania Scores Again

The State Industrial Safety Conference at Harrisburg, Pennsylvania, September 16-17, featured a special session built around the theme that "Safety is Good Business for Small Business." Our Small Business Committee was represented by Bob Scott, safety

—To page 172

## EFFECT OF EXPERIENCE ON RATES

ANNUAL PREMIUM \$2,000 TO \$8,000





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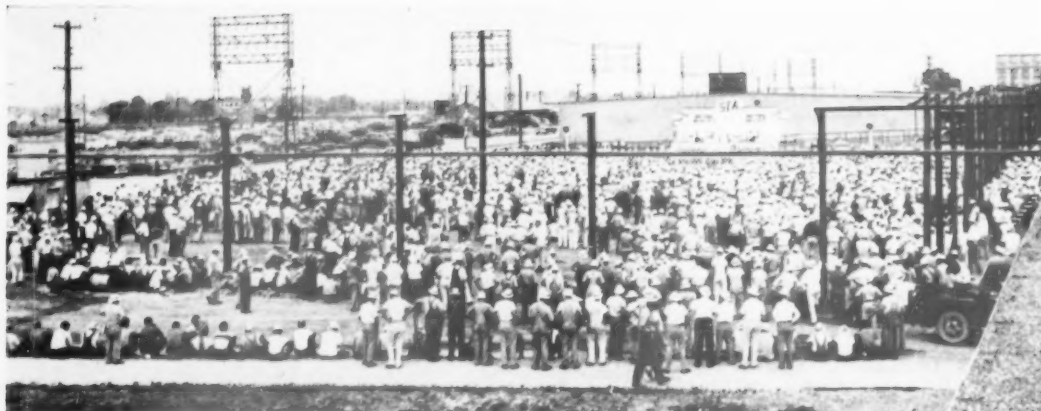
Yes, oil men who know, say — for greater comfort — safety and longer wear, use Neo-Cord soles and heels.

Available in 14 and 17 iron with matching heel in complete men's size range.

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Presentation of an award was the occasion for this safety rally at Indiana Ordnance Works

## The Taxpayer Gained

**Four million safe man-hours meant substantial savings in compensation payable from public funds**

A SMALL piece of steel—just about one-eighth inch in diameter was large enough to bring an outstanding safety record to an abrupt halt. The minute missile entered a worker's thigh, last May, and the injury caused him to lose time from work.

And so ended an injury-free record for 5,000 construction workers, who up to that moment had worked under a safety system which chalked up 4,112,095 safe hours of exposure on heavy construction work which had been under way for 17 months. The mishap-free period had extended nearly six months.

This performance was established by the Blaw-Knox Company, Chemical Plants Division, in the reactivation of Plant No. 1 of the Indiana Ordnance Works, an explosive manufacturing plant at Charlestown, Indiana.

The Blaw-Knox Company is a subcontractor to E. I. du Pont de Nemours and Company, contractor for the U. S. Army Ordnance Department and Corps of Engineers. The indoctrination which ultimately gave perfect perform-

ance began in February 1952, but perfect performance was not experienced until almost 12 months later, beginning in December 1952, and ending May 25, 1953, with over 4,000,000 hours in the latter period. This performance in construction has been exceeded only three times in the construc-

tion industry, and each time by the Construction Division of the du Pont Company.

The record is commendable because of the heavy and hazardous nature of the work. Many parts of the plant being reactivated from the period of World War II were contaminated with crude nitrocellulose, always potentially dangerous. Extremely detailed precautionary measures had to be maintained over extraordinary wide areas to eliminate all sources of contamination and other possibilities resulting from old leaks



A huge display board carried this object lesson. Beside it was a scoreboard showing the safety standings of the various departments.

and spills that occurred during war time operations. These hazards involved possibility of flash fires, explosion and irritants frequently uncovered in unexpected places. Nitrated cotton is extremely sensitive to heat and pressure.

In addition to 60 basic functions required in the broad scope safety system for all normal construction hazards, the explosive hazards were controlled by the use of a special group trained in locating and handling the workers, as well as the locations at which stray explosives, even minute in quantity, were found. This special control group wore yellow-colored hard hats and the letters "NC" were stenciled on the hats to indicate that they were searchers for nitrocellulose (contaminates). Where there was any indication of the possibility of hidden explosive matter, no matter how small, the area was always thoroughly wet down to preclude ignition before any work was started. In general, the areas were always thoroughly decontaminated before work by the crafts was permitted.

Scope of the work in this contract, consisted of disassembly, inspection, cleaning, decontamination and replacement of the manufacturing facilities of the plant. This included large machinery, tankage, piping, manufacturing buildings, and power service buildings. Much of the wood construction, especially tanks, ramps, catwalks which have been exposed to weather for many years, have been replaced, as it had become weakened by years of weathering.

The safety program at this project was a joint effort by Blaw-Knox and du Pont, making use of the du Pont system. The safety supervisor, D. L. Stewart, as is customary in that system, reported directly to the project manager, Courtland Steelman. This arrangement, one of the key points of the system, permits the safety department to administer a practical program with the support of top management.

Weekly safety meetings are held at all supervisory levels. All of

## Electric Eye Opens Plant Fire Doors



Heavy fire doors at Synthane Corp., Oaks, Pa., snap open at approach of even a small object. The electronically-operated door-opening mechanism speeds traffic production and shipping departments. Arrows indicate "electric eye" beams which open and close doors when interrupted.

COMBINING safety with efficiency, an electronic beam acts as a robot doorman in the modern Synthane plant at Oaks, Pa. While the materials and processes required to manufacture thermosetting laminated plastics are not particularly hazardous, safety precautions are taken to protect employees and property.

these meetings, however, are pre-planned despite their regularity. One example of how safety meetings in this system operate is as follows: Every Monday morning before starting work each gang foreman stands before his ten to 12 men and reads and discusses with them the material produced the Friday before in the *Safety Forecast* which was actually the

When fire doors impeded normal traffic flow between the production and shipping departments, twin "electric eye" beams were installed, one on each side of the door. Interrupting the first beam actuates the electronic circuit to open the door. The door then remains open until the second beam is interrupted.

work of a planning committee, anticipating the major hazards in the next week's work.

Each Friday the manager's staff meets and safety is always the subject matter for the first part and not less than 20 minutes of every project manager's weekly staff meeting.

One outstanding feature of this  
—To page 136

# GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

Compiled by TOM A. BURKE

Director of Local Safety Programs, Field Organization, NSC

## Conference of Local Safety Organizations Meets

At the Procedures Committee meeting on Sunday, October 18, and the meeting of the Conference of Local Safety Organizations on Monday, October 19, at the La Salle Hotel, Chicago, subjects of current interest were discussed. Earl F. Campbell, director, NSC Field Organization, reported on general operations under the Conference Plan, including developments and progress in states and communities where there are good prospects for establishing new Chapters.

J. James Ashton, Wilmington, Del., presented a report on plans for the 1954 National Institute for Safety Council Administration; Robert B. Leopold, Atlanta, Ga., reported on progress of enrollment under the Retirement Income Plan for Chapter employees; and Dr. B. L. Corbett, Milwaukee, Wis., outlined development of standards for Chapters and appraisal of Chapter operations. H. G. (Jim) Hays, Cleveland, Ohio, chairman of the Green Cross Film Committee, reported on latest developments in visual aids.

Applications for Chapter affiliation from the Saginaw Safety Council, Saginaw, Mich., was approved and recommended for confirmation by the NSC Board of Directors. In addition, four members of the Committee on Procedures of the Conference of Local Safety Organizations were elected for three-year terms expiring in October 1956, to replace the members whose terms of office had expired.

Noble Dutton, assistant direc-

tor, NSC Field Organization, made a report on the development of a Highway Traffic Center at Michigan State College and its implications for all Land-Grant colleges. Additional reports were given by Tom A. Burke, acting director, Western Region Office, and Edwin S. Smith, director, Eastern Region Office, NSC, on regional activities and services to chapters and other safety organizations in their fields.

The Conference also voted that a resolution be engrossed honoring Colonel William M. Myers, managing director of the Richmond Safety Council, for his 24 years of faithful and effective service. Colonel Myers retired as of October 1, 1953.

## 1953 Managers Meeting

More than 150 managers and assistants attended the two-day session of the Managers' Conference, held on October 16 and 17. One of the highlights of the Friday meeting was a discussion of policies relating to the new Congressional Charter and the new relationship with the Federal Government as it affects chapters, led by Earl F. Campbell, director, Field Organization, NSC, and Harry N. Rosenfield, NSC representative, Washington, D. C. It was felt the new Charter would lend prestige and bring more recognition to the safety movement.

There was also a discussion of the off-the-job safety program in the E. I. du Pont de Nemours and Company plant in Louisville, given by Charles F. Cook, safety director for du Pont in that city and Estel Hack, executive vice president of the Louisville Safety Council. Of particular interest was the

report given on Saturday by Miss Gladys Blodgett, supervisor of Chapter Library Service, on the purposes, functions and maintenance of the Chapter libraries.

Ten Special Achievement awards and eight Honorable Mention citation certificates were presented at the Friday luncheon by Dr. B. L. Corbett, chairman of the Special Achievement Award committee. In addition, local council home safety awards, inter-city plant and inter-city fleet safety awards were also presented.

## Rickenbacker at Dayton

Captain Eddie Rickenbacker, chairman of the board of directors, Eastern Airlines, for many years an aviation safety crusader, was the featured speaker at the opening session of the Dayton Chamber of Commerce Industrial Safety Forum on September 8. Other sessions were scheduled for Sept. 23, Oct. 13, Nov. 10, Feb. 10 and Mar. 9. Harry Anderson, vice-president of General Motors Corporation, will speak at the November meeting on "Safety is Good Business." Claude Willis is chairman of the Industrial Committee of the Chamber's Safety Division, which is sponsoring the excellent series.

## Cake for the Kiddies

The Santa Clara County Chapter, NSC, with headquarters in San Jose, recently observed its fourth birthday in fitting style. A huge cake, about 30 inches square, featuring a design of the Green Cross emblem on the frosting was the attractive centerpiece at the birthday luncheon, attended by directors, officers and members of

—To page 170





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# Letter From a Ship Builder

By WILLIAM H. REYNOLDS

**I**T HAS always seemed to me that a ship in water is the most graceful object of man's handicraft. Riding head-high in the lift of the waves, she holds fast to her beauty even in old age. Her stacks are painted, her rigging is groomed, her rails are manicured and she reflects the personality of her master and her crew.

But her beauty depends upon the sea. It is her buoyancy, her mastery over water and a centuries-old tradition which make her the object of artistry.

Out of water, she is a mammoth, frightening thing with towering, barnacled sides—impersonal and impenetrable.

She is a killer. She always has been. From the time her keel is laid until the end of her final voyage she is the implacable enemy of those who handle her without competence and caution.

The mere listing of potential accidents in building or repairing a ship would read like a scorecard on mayhem. She requires forging, cutting, burning, welding, adzing, steel bending, craning and a hundred other operations—all of them hazardous. Men who transport tremendous loads and work under tremendous heat live in the shadow of death. The threat of a crippled body is never far distant.

This is nothing new to those who have lived around ships; nor do I intend to write it as such. Here at Tampa Marine as in every other reputable shipyard, every possible precaution is taken to offset accidents. It would seem that it was impossible for anyone to hurt themselves or their co-workers. Still, the injuries occur

and I have been trying for years to find the solution. We have never had a death by accident (for which we thank God) but a repetition of minor injuries has given me a strong lead toward the solution.

I noticed that each day, between five and ten men dropped into First Aid with "foreign matter" in their eyes. Sometimes it was a fleck of dust; sometimes a sliver of steel. It struck me as rather strange because every man whose job requires them, is equipped with goggles. The sole trouble was that they did not wear them.

## Key to the Problem

Here, in my opinion, is the attitude of mind which is the key to the whole accident problem. Not only in the case of eyes but in every other incidence of injury. A worker can't wear his goggles in his pocket; there is nothing in the world to keep him from walking off the deck of a ship; if he is foolish enough he can look into a welding flash; if he wants to poke his hand into a bandsaw he will go ahead and do it; if he thinks he is tough enough to pick up a hot pipe he will have a try at it and if he makes up his mind to walk under a loaded crane he will go ahead and do it. It just seems that some men are hell-bent on self-destruction. If a worker happened to be all alone on the job and decided to take a few risks, it wouldn't be so bad. He could only break his own neck. And when he decides to grab a smoke near the acetylene tanks, he can blow up everything and everybody within fifty feet. He can start feeling frisky on the scaffolding and start a little horseplay which can cause a fall or hit

a tool which might drop on somebody below. This is when he really becomes a menace.

A short time ago, I read a court decision on a wise guy whose horseplay backfired on him. This joker thought it was a comic idea to slip up behind one of his co-workers and slap a couple of boards together which resembled the crack of a gun. On one occasion, his victim carried a heavy tool in his hands and at the sharp crack he jumped about a foot. The tool flew out of his hands and struck the prankster in the face, giving him a nasty cut. When the prankster's application for compensation was denied he brought the case to court. The court ruled that he was not entitled to compensation because, although the accident occurred at work, it was not the result of work environment.

There may be many people who do not agree with the judge's opinion. However, it certainly gives a good idea of what everybody thinks about horseplay on the job. I am convinced, after considerable thought and discussion, that almost every accident starts in a man's mind. An accident is not a *cause*; it is a *result*. Instead of saying that an injury is caused by an accident, it is more accurate to say that an accident is caused by an attitude of mind. A flighty, scatter-brained worker, or a man preoccupied with personal worries is about the most dangerous single item in a shipyard.

## Danger Signals

It is pretty well agreed that such things as lack of concentration, inexperience, mental dullness, taking chances, personal worry, fatigue and intoxication are danger signals. How to overcome them is another problem—and a very serious one. Naturally, we have a safety department and accident-prevention devices by the hundred but still the daily visits to First Aid are enough to make us uncomfortable.

—To page 143

WILLIAM H. REYNOLDS is President, Tampa Marine Company, Tampa, Florida.

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# THE SAFETY LIBRARY



Books, Pamphlets and Periodicals of Interest  
to Safety Men

Compiled by Ruth Parks, Librarian, NSC

## BOOKS AND PAMPHLETS

### Job Psychology

*Motivation and Morale in Industry*, by Morris S. Viteles. Published by W. W. Norton & Company, New York, 1953. 510 p. \$9.50.

This book is the sort of thing that more professional safety people should read. For best understanding it does require a little basic knowledge of psychology of the type which may be gained by reading.

Without such knowledge some of the book is a little heavy. There are many case histories which are of interest only to the professional. However, by skipping through these there is still much valuable information of the type that could be put to work by safety people.

Basic throughout the volume is the conviction that the human being is the central, the rarest, the most capital resource of an industrial society, and also the conviction that management has a fundamental responsibility as coordinator of human efforts in industry.

The author points out that many basic problems of attitude formulation can be understood only if it is recognized that both our individual and social purposes are important in determining what is perceived. He suggests that one of the important needs of modern industry is a better understanding of the factors which underlie the "will to work," and of conditions and devices which can most effectively arouse the inner forces which lead the employee to participate willingly in the aims of industry.

The author covers in some de-

tail with discussions and case histories the relative importance of such things as financial and non-financial incentives, influence of job preference, and the work group as a social organization. Considerable space is devoted to attitude toward the employer and toward employee organizations, and also to the findings and applications of attitude surveys.

Charles F. Alexander

### Safety Fundamentals

*Industrial Safety* (Second Edition), edited by Rolan P. Blake, senior safety engineer, Division of Labor Standards, U. S. Department of Labor. Published by Prentice Hall Inc., 70 Fifth Ave., New York, 1953. 474 p. Price \$7.90.

The book consists of 32 chapters representing the work of: Mr. Blake, the editor; T. O. Armstrong, manager industrial relations, Westinghouse Electric Corp.; C. B. Boulet, director of personnel, Wisconsin Public Service Corp.; M. A. Gimbel, safety engineer, Rohm & Haas, Lennig Plant; S. W. Homan, safety engineer, Childrens Bureau, U. S. Department of Labor; W. Dean Keefer, second vice-president, Lumbermens Mutual Casualty Company.

The contents deals with the fundamentals of accident prevention in productive industry, including organization of a program, training, promotion and maintaining interest, analysis, and certain details with regard to tools and machinery, material handling, electrical hazards and fire protection. In this second edition the emphasis has been placed on bringing certain sections up to date and adding two new chapters.

Listed at the end of each chapter is a set of review questions; a bibliography is included at the end.

Howard W. Warzyn

### Flammable Liquids

*Flammable Liquids Drum Storage—Fire and Explosives—Hazards*. Published by Factory Mutual Engineering Division, 184 High St., Boston 10, Mass. 1953; 12 p. Price 20c.

*Recommended Regulatory Standards of the NBFN for Tank Vehicles for Flammable Liquids*. Published by National Board of Fire Underwriters, 85 John St., New York 38, 1953; 14 p. Free (NBFU Pamphlet No. 385).

### Workmen's Compensation

*Workmen's Compensation Problems 1952*. Proceedings 33rd Annual Convention of the International Association of Accident Boards Commission. Published by U. S. Bureau of Labor Standards, 1953; 266 p. For sale by the Superintendent of Documents, Washington 25, D. C. Price 65c (Bulletin 167).

## MAGAZINE ARTICLES

### Air Pollution

*Air Pollution and Public Relations*. By John M. Kane, *American Foundryman*, Sept. 1953; p. 64.

*Elimination of Air-Borne Dust and Gases*. By W. S. Cruickshank, *Supervision*, Sept. 1953; p. 10.

### Chemicals

*An Arsine Problem—Engineering Notes*. By Glenn A. Johnson, *Industrial Hygiene Quarterly*, Sept. 1953; p. 188.

*Bulk Storage of Alcohol*. By James J. Duggan, *National Fire Protection Association Quarterly*, July 1953; p. 21.

*Tetrachlorethylene Exposure in a Small Industry*. By H. Robert Coler and H. R. Rosemiller, *AMA Archives of Industrial Health and Occupational Medicine*, Sept. 1953; p. 227.

*Toxicity of 2-Ethylhexyl Diphenyl Phosphate*. By Joseph F. Treon and others, *AMA Archives of Industrial Hygiene and Occupational Medicine*, August 1953; p. 170.

### Color

*Color Code Can Cut Accidents*. *Railway Age*, August 31, 1953; p. 18.

### Fire Protection

*Radio Frequency Energy—A Potential Hazard in the Use and*



*Transportation of Electric Blasting Corps. Explosives Engineer.* July-August 1953; p. 116.

*The Significance of Fire Loading.* By R. C. Corson, *National Fire Protection Association Quarterly*, July 1953; p. 65.

#### Foundries

*Foundry Industry Faces Problems of Occupational Hearing Loss.* *American Foundryman*, Sept. 1953; p. 66.

#### Handling Materials

*Precautions in Handling and Storing Hazardous Liquids and Materials.* *The Plant*, Sept. 1953; p. 52.

#### Health

*Aggravation as a Factor in Industrial Dermatitis.* By Bernard Appel, *AMA Archives of Industrial Hygiene and Occupational Medicine*, August 1953; p. 133.

*Challenge of Industry to the Medical Profession.* By William H. Seymour, *AMA Archives of Industrial Hygiene and Occupational Medicine*, August 1953; p. 102.

*Chronic Bronchopulmonary Disease Due to Inhalation of Sulfuric Acid.* By Alfred Goldman and William T. Hill, *AMA Archives of Industrial Hygiene and Occupational Medicine*, Sept. 1953; p. 205.

*Fluorine Exposure During Low-Hydrogen Welding.* By John J. Ferry, *Industrial Hygiene Quarterly*, Sept. 1953; p. 173.

*Motivating Employees for Industrial Health.* By Herbert K. Abrams, *AMA Archives of Industrial Hygiene and Occupational Medicine*, Sept. 1953; p. 246.

#### Housekeeping

*Year-Long Contest Gets Workers into Clean-Up Hoist.* *Factory Management and Maintenance*, Sept. 1953, p. 142.

#### Industrial Safety

*How to Have an Accident.* By Alfred G. Larke, *Dan's Repair and Modern Industry*, Sept. 1953; p. 51.

#### Maintenance Interest

*Maintenance Interest in Accident Prevention.* By Elmo E. Chap-pell Graive, Sept. 1953; p. 14.

#### Noise

*Noise in Industry.* By Aram Glorig, *Industrial Hygiene Quarterly*, Sept. 1953; p. 161.

—To page 174

## FRESH AIR AND SAFETY right in the middle of TOXIC WORKING AREAS!

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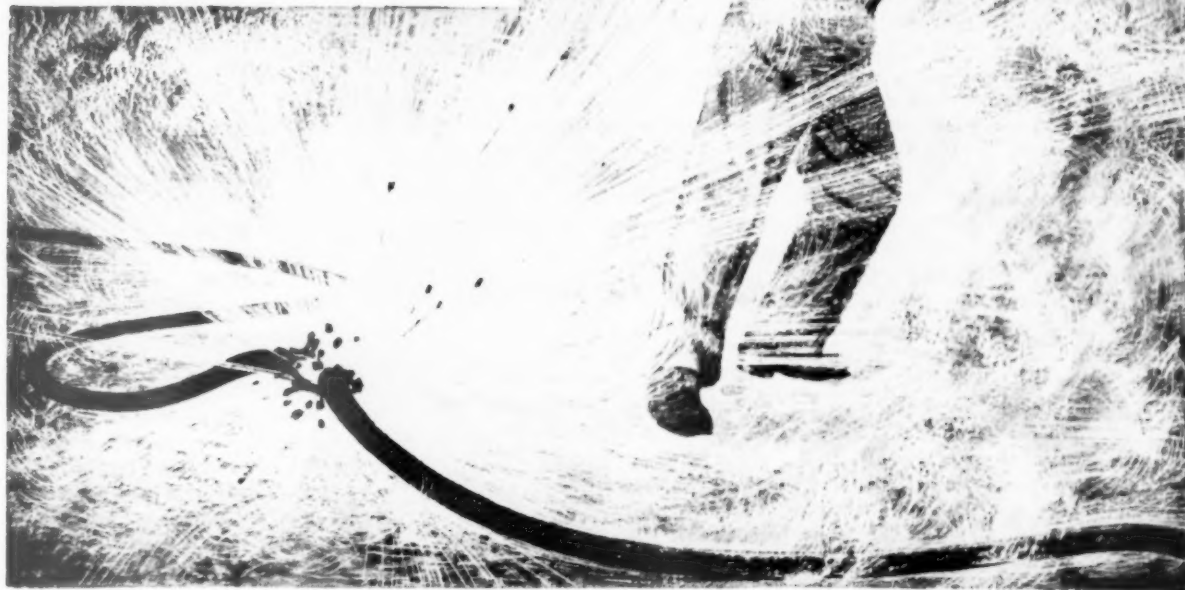


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## A black and white photograph of a man in a military uniform standing on an airfield, holding a clipboard. In the background, a large aircraft with "United" written on its side is visible, along with other personnel and equipment.

National Safety News, November, 1953

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## Cases for Comment

Compiled by **ROBERT D. GIDEL**,  
*Senior Engineer, Industrial Department, National Safety Council.*

### Emergency Work

A QUESTION has arisen concerning the proper interpretation of paragraph 2.1.5.2 of the Z16.1-1945 American Standard Method of Compiling Industrial Injury Rates.

The paragraph follows: "A worker called away from his house for special emergency duties, but not required to live away from home, is in the course of employment from the time he leaves his home until he returns."

Would a strict interpretation of this paragraph indicate that any time a maintenance man is called to the plant in the night as a result of a plant breakdown or emergency, his industrial exposure would include all time spent in coming to the plant and returning home after the job is completed? Maintenance employees are not the only ones who might be affected. If a man is taken ill during his shift, a replacement would be called in possibly to report two or three hours earlier than his regular reporting time. Would the fact that he is reporting two hours earlier as a result of a plant emergency mean that a highway accident on the way to work would be included in his industrial record?

The Committee of Judges decided that paragraph 2.1.5.2 is subsidiary to and is merely an amplification of the general rule of 2.1.5. This rule states: "An injury to an employee (such as a public utility lineman or traveling salesman) whose duties do not require him to work at a regularly established place of employment shall be classified as an industrial injury if it occurs during time spent on duty."

This general rule would include utility linemen, gas or water employees, or others whose work is out in a public area. For these people, when called out on emer-

gency work, their exposure commences when they leave their homes and ends when they return to their homes. This rule has never been interpreted to apply to employees who work in a specific place, such as a plant. Even if such employees were called out specifically, as in the example given, their employment would not start until they reached the plant property, regardless of whether the call was an emergency one, or whether he was reporting for regular duty.

### Fainting Spell Reportable?

A middle-aged female bench assembler reported for work at 7:00 a.m. At approximately 8:00 a.m. the supervisor requested this employee and a group of others for whom he was responsible to report to the conference room for a five to ten-minute discussion. Since the conference was to be a short one, the employees did not bother to sit down in chairs that were available, but stood throughout the conference. Five minutes after the conference was in progress the employee fainted and fell face downward on the asphalt tile floor and struck the left side of her forehead and face. Injuries thus sus-

tained kept her away from work for four days.

Inasmuch as this was considered a borderline case by the Committee of Judges, the main factors to be considered were as follows:

1. Could the subject of the conference have been of such a nature as to cause the fainting spell?

2. Did the plant have a regular medical examination of employees?

3. Did the company record show that this employee had been away from work because of her illness since she stated after the accident that she had been ill before this time?

4. Did her job place her in a more dangerous area than she might have been in otherwise—which resulted in the injury after the fainting spell?

The Committee of Judges noted that although the fainting spell occurred during the hours of work, there was no evidence to indicate that it arose out of employment. They decided, therefore that the case did not meet the requirements of paragraph 2.1 of the Standard Code. Asphalt tile floors are rather common things, found in homes, stores and other places as well as factory conference rooms. Therefore the employee's work did not place her in an unusually hazardous location. The subject matter of the conference was not of such a nature as to cause the fainting spell and registered nurses were on duty full time. The medical staff could not establish any reason for the fainting spell.

### Travel to Special Meeting

One of the vice-presidents of a multi-plant company was visiting in a town containing one of their plants. The local manager arranged a dinner meeting and invited the key people of the plant to this meeting to hear the vice-president give a talk. The persons invited were not required to attend and those on an hourly basis were not paid overtime for attending the meeting nor were their travel expenses paid.

Four of these key mill employees lived within a reasonable distance of each other. They went home and all four of them got into one car and headed for the

—To page 173

A COMPANY competing for an outstanding safety record wants to make sure that no accidents are wrongly charged. This can be done through ASA Standard Code Z16.1-1945. If there is any doubt as to interpretation of the Code, the Committee of Judges of the American Standards Association Sectional Committee is available to review the facts.

A few of these cases are discussed briefly in this department. It is hoped that they will aid readers not only in determining the chargeability of accidents but also in planning preventive measures.



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# Who Is Morally Responsible?

By PAUL F. POWER

**Management's responsibility for accident prevention is clear-cut and generally recognized. But how about the worker's?**

**T**ODAY most people believe management has a moral responsibility to give its employees safe places in which to work.

Management agrees that there is a moral, not just social or economic, responsibility for safety which is created by duties and privileges of owning and managing business enterprises.

Some managers might say that this responsibility is only a reflection of an obligation that actually lies with the owners of business. But as managers increasingly share in the fruits (and headaches) of ownership, this hair-splitting may die out.

A few managers admit no moral responsibility in safety matters. They leave questions of right and wrong to the Seventh Day and recognize only as many legal and financial obligations for safety as current pressures dictate.

But what of management's dominant attitude that does admit its moral responsibility? Is it ever vocal to the point that an employee's behavior in safety matters is accountable by the same standard? Does management ever say there is a yard-stick of right and wrong in safety that applies to an employee as well as management?

It would be wishful thinking to answer these questions "yes." There is little evidence that, in safety, management actively assumes worker conduct can and should in the last analysis be subject to a standard of right and wrong, admitting as a first principle that management's measurement by this standard will always be greater than a single employee's.

Yet if management does not point out that the same standard applies to an employee as well as

itself, I don't think it's facetious to ask, who will?

There will be many reactions. But what kind of responsibility is being stressed?

Responsibility to follow safe methods, to obey safety rules, to behave as a mature member of an industrial society—not as a deviate or delinquent, all these are highly desirable and should be pursued by management through every means at its disposal. But even these miss the basis on which they ultimately rest: a moral requirement to behave safely.

Perhaps some examples will indicate the problem I have in mind.

In my own experience hundreds of routine reports on accidents investigated by supervision have crossed my desk. There were several in which engineering, method and placement causes had been explored and with good reason discarded. Of these that had three major, "tangible" causes absent, a majority showed a distinct tendency of the management investigator to shy away from suggesting the injured had done the wrong thing, morally speaking. There were inferences that the cause was not beyond control of the injured. That is not the same as putting conduct unblushingly in the area of right and wrong when all the facts point to that last resort.

## The Whole Person

Management does not exist in a vacuum. It gets ideas and attitudes from its own experience, the opinions of others outside it and whatever creative efforts its members apply to a subject. Consequently, when it comes to responsibility for safety, I think management has contributed to

and has been deeply influenced by an attitude H. W. Heinrich typifies in his *Industrial Accident Prevention*.

Heinrich spells out four "theorems" of accident prevention:

1. Personal injury occurs only as a result of an accident.
2. An accident occurs only as a result of a personal or mechanical hazard.
3. Personal and mechanical hazards exist only because of the faults of persons.
4. Faults of persons are inherited or acquired by environment.

The fourth theorem stops too soon! It lacks a full conception of people. It underestimates the capacity and capability of employee "persons" to be complete and strong enough to be morally responsible for their industrial conduct.

Certainly "faults of persons . . . inherited or acquired by environment" do exist and should be corrected. But to stop with inheritance and environment is to say that men are splintered, that their spleens can be treated and their aptitudes tested but that there is no spring tonic available good for the whole person.

Men seen only through the lenses of heredity and environment have no unity, no focal point on which judgment can act. They can be bandaged, counselled and cajoled, but they will elude the final effort—a moral one—to keep them safe as long as they are considered creatures of their surroundings and inheritance.

Management today is preoccupied with applying the specialized accomplishments of science, education and engineering to the

—To page 139

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**USE  
HOUGHTON  
ANTISEP**

**WATER-SOLUBLE, ALL-PURPOSE CUTTING BASE**

Effective for over 90% of all machining operations, Antisept also keeps personnel and equipment safe from fire and explosion. Antisept is a heavy-duty fortified cutting base that is soluble in water. Antisept A. P. Base offers no target to catch fire or start a blaze. Moreover, even in 30-to-1 dilutions, it provides lubricity, film strength, antiwelding and antiseptic properties not found in oil-mixed bases much higher in cost. A test will convince you.

**PROMOTE PLANT SAFETY**

with these Houghton cost-reducing products of proved efficiency. Ask the Houghton Man for details or write to E. F. Houghton & Co., 303 W. Lehigh Ave., Philadelphia 33, Pa.

For **SAFETY** specify these products by

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PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO



**Ready to give you  
on-the-job service . . .**

# INDUSTRIAL HEALTH



Abstracts of current literature  
on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA  
Industrial Department, NSC

## Arsenic Trioxide

Arsenic Trioxide Exposure in Industry by Sherman S. Pinto and Charles M. McGill. *Industrial Medicine and Surgery* 22:281-287 (July, 1953).

Arsenic is isolated from the smelting of copper and lead ores. It is caught in the flue dusts and separated from these dusts by sublimation. The sublimed material is practically all in the form of arsenic trioxide. The commercial product containing approximately 97 per cent arsenic trioxide and the remainder being mostly antimony trioxide.

The sublimed arsenic is collected in brick "kitchens" from which it is normally removed manually. A definite effort is made to get the arsenic into the form of fairly coarse crystals since they are more desirable than fine powder in the industry, but the handling of the material is still apt to be fairly dusty. The dusts can be inhaled and absorbed from the respiratory tract. It can also cause dermatitis both by contact and systemically, probably as an allergic phenomena, and dust trapped on the nasal septum will cause ulceration and perforation of the cartilage.

Men working with arsenic trioxide should wear clean clothing every day. These include underwear, socks and coveralls with an attached hood which can be pulled over the head and cover the scalp, ears and the back of the neck. Drawstrings should be provided so that the wrists and ankles can be closed off to prevent the entrance of dust.

It is desirable to have two locker rooms separated by a

shower room so that the street clothes are left in one locker room and the work clothes at the other and it is very easy for the employee to take a shower at the end of the day as he walks through the shower room to get his street clothes.

Respiratory protection is necessary but the respirators approved by the Bureau of Mines have not been satisfactory in the experience of these authors. They use a simple hard rubber frame which holds pieces of surgical sheet wadding over the nose and cheeks. The sheet wadding is replaced every time that the respirator is removed.

If the concentration of the dusts in the air is high, this protection should be supplemented by dust-tight goggles to prevent the production of conjunctivitis.

There have been a few reports of normal levels of arsenic in the urine but not very many. These values have averaged 14 micrograms of arsenic per liter of urine in one instance and 126 micrograms per liter in another. As part of this study, 147 samples

were analyzed from 124 individuals working in industry and having no known exposure to arsenic. The average urinary arsenic value was 130 micrograms per liter and the median value was 100 micrograms per liter. The highest value in this group was 2.06 milligrams of arsenic per liter. No explanation for this high value could be found.

Three hundred and forty-eight men exposed to arsenic trioxide dust were examined by multiple spot samples of urine. A total of 835 samples were obtained. The average urinary arsenic value was 820 micrograms per liter and the median was 580 micrograms per liter. The values for the exposed men ranged up to somewhat over 5 milligrams of arsenic per liter of urine.

During the study a number of the men being studied developed acute arsenical dermatitis. They were all hospitalized and treated by intramuscular injection of BAL with the exception of one man who refused the treatment. There was no simple relation between the urinary excretion of arsenic and the development of dermatitis. Several showed dermatitis while their urinary arsenic levels were within the range found among the control subjects and some of the ones developing dermatitis had the highest urinary arsenic levels seen in the study. Only one possible and somewhat questionable case of systemic arsenic poisoning was seen in the study in spite of urinary concentrations of above 4 milligrams per liter.

The things which were seen in  
—To page 164

## Help Fight TB



Buy Christmas Seals





*At this very moment, hovering over  
your plant, fire is ready to swoop  
down on storage spaces, electrical  
generating equipment, record vaults.*

*But like a bird of prey, it  
casts a warning shadow... IF  
you have a KIDDE Industrial  
Smoke Detector.*

**Kidde**

**Walter Kidde & Company, Inc.**

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# FOR DISTINGUISHED SERVICE



## National Safety Council Awards for Outstanding Records

**T**HREE types of awards for outstanding performance in industrial accident prevention are provided for in the "Plan for Recognizing Good Industrial Safety Records" adopted in January, 1952, by the Industrial Conference and the Board of Directors of the National Safety Council.

The three types of awards are:

1. **THE AWARD OF HONOR**, the highest award, replaces the Distinguished Service to Safety Award. It goes to industrial establishments whose experience meets rigorous statistical standards, even though it may not be injury-free. It also goes to those which complete 3,000,000 manhours without a disabling injury.

2. **THE AWARD OF MERIT** has similar but less exacting requirements. The standards for non-perfect records are somewhat lower, and the minimum number of injury-free manhours needed to qualify is 1,000,000.

3. **THE CERTIFICATE OF COMMENDATION** is given only for no-injury records covering a period

of one or more entire calendar years and involving exposure of 200,000 to 1,000,000 manhours.

For qualifying calendar-year experience, all three types of awards are made automatically on the basis of annual reports submitted to the Council by members. The Award of Honor and the Award of Merit may also be made on special application in two types of cases.

1. Where a qualifying total of injury-free manhours is accumulated in some period other than a calendar year.

2. Where a current period of two or more years is to be used in evaluating injury rate improvement.

Publication of awards under this plan succeeds "The Honor Roll" department formerly published in the **NATIONAL SAFETY NEWS**. The foregoing is but a synopsis of the award plan. For a more complete and precise statement of eligibility requirements, members should refer to the plan itself. Details may be obtained by

writing to Statistics Division, National Safety Council.

### AWARDS OF HONOR

Douglas Aircraft Co., Inc., Santa Monica (Calif.) Division.  
Ford Motor Co., Dearborn Tool and Die Plant, Dearborn, Mich.  
—Memphis Assembly Plant.  
Kellogg Co., Battle Creek, Mich., Battle Creek Plant.  
Rohm and Haas Co., Bristol, Pa., Bristol Plant.  
United States Defense Corp., Ammunition Division, St. Louis (Mo.) Ordnance Plant.

### AWARDS OF MERIT

Ethyl Corp., Baton Rouge, La., Baton Rouge Plant.  
Hawaiian Commercial & Sugar Co., Ltd., Puunene, Maui, Hawaii (Entire company).  
Hercules Powder Co., Radford Arsenal, Radford, Va.  
Judson Mills, Greenville, S. C.  
West Penn Power Co., Pittsburgh, Pa. (Entire company).  
West Point Manufacturing Co., West Point, Ga., Fairfax Mill Division.  
West Virginia Pulp & Paper Co., Charleston Mill, Charleston, S. C.  
Woodside Mills, Greenville, S. C., Liberty Plant.

### Issue Standard for Oxychloride Floors

**STANDARD REQUIREMENTS** for a floor that will stand up under severe service in industrial plants or public buildings is announced by the American Standards Association.

Details have been released by the Association under the title, *American Standard Specifications for Industrial Granolithic Oxychloride Flooring and Its Installation*. The standard is one of a group on oxychloride flooring is-

sued this year.

These specifications provide for a floor of the terrazzo type which is extremely hard, tough and durable. The aggregate is crushed granite, trap rock or similar hard stone chips, and is not ground to such an extent as to produce a high polish. This type of flooring is used mostly where decorative effects are not required.

The standard gives detailed requirements for materials used in mixing the aggregate, conditioning of the area to be covered, prepa-

ration of subfloors, method of application, thickness, sealing, and the protection of the finished installation.

Also included in the specifications are methods of testing the consistency of the flooring, material, linear change, flexural and compressive strength, and method of gauging the flooring solution.

The project was sponsored by the American Society for Testing Materials and the National Bureau of Standards under the procedure of the ASA.

*first aid for throat irritations*

# Thantis

**LOZENGES**



**S**ORE THROATS due to coughs and colds, if neglected, may result in lost man hours of work.

The use of 'Thantis'® Lozenges puts first things first.

'Thantis' Lozenges relieve pain promptly—reduce infection—act prophylactically.

Twenty-three years' extensive clinical and lay use has proved the safety and effectiveness of this popular product.

® Reg. U.S. Pat. Off.



**Mercurochrome**

*first aid for wounds*

Neglect may cause infection which can be prevented by prompt use of 'Mercurochrome'.®

No antiseptic has been proved to be more effective than 'Mercurochrome' for topical application.



**HYNSON, WESTCOTT & DUNNING, INC., BALTIMORE 1, MARYLAND**

## Associations Win Awards, Too

(From page 29)

dation and the British Columbia Manufacturers Association, reported reductions ranging up to 62 per cent in five years.

The unusual and varied nature of activities reported by the associations will prove very helpful in guiding the Council's association safety work. For instance, the Institute of Industrial Launderers, with a safety program barely a year old, reports that 25 per cent of its members launched their own safety programs. The British Columbia Lumber Manufacturers Association sets aside 17 per cent of its budget for accident prevention activities and justifiably boasts 100 per cent membership participation in the association program. The Can Manufacturers Institute, also within a year's time, set up a very complete package program for its membership—a program directed by a small safety committee of volunteers.

### Association Safety Services

The services offered by a number of associations were equally varied. The Drop Forging Association, upon request, arranges for a safety engineer from the industry

to make a safety inspection. The American Gas Association, and several others, analyzes serious accidents, reporting their findings and recommended preventive measures in regular bulletins. The British Columbia Lumber Manufacturers furnishes staff engineers to investigate serious accidents and to give on-the-spot consultation service.

Many of the Associations conduct a safety contest and offer awards of one type or another. The Dominion Brewers Association, for instance, reports that 54 out of its 57 members actively participate in their contest. Of course, the associations derive maximum publicity value out of the contest and most of them hold it up as a tangible service to attract new members.

Safety courses are offered both on the local and industry-wide level by such groups as the Montgomery County Manufacturers Association and the American Foundrymen's Society. The latter has pioneered in the field of enlisting the help of key universities to put on courses for supervisors and executives in nearby foundries.

An increasing number of associations sponsor national and regional safety conferences; even more associations bring safety speakers into their regular convention programs. The Manufacturers Association of Montgomery County (Pennsylvania) has drawn crowds of five or six hundred executives and supervisors, principally from small companies, at their annual safety conference. The American Association of Oilwell Drilling Contractors regularly attract several hundred executives to their two-day safety clinics and draw excellent attendance of supervisors at their five regional safety conferences.

Safety publications provide a natural outlet for association safety service. Associations like the American Association of Oilwell Drilling Contractors have adapted the Council's general material to their own use, even going so far as to "translate it" into the vernacular of the drilling industry. To supplement the Council's general and special industry material it is only natural that many associations develop their own specific safety material. The Can Manufacturers Institute provides convenient reference material in the form of loose-leaf data sheets, while the Institute of Industrial

—To page 159

Typical samples of association publications, ranging from promotional to technical, for use by employees, supervisors and executives.





One demonstration, and key men agree

# NEW Scott Industrial Wipers



Most plants have found a 90-day trial—with a Scott representative working hand in hand with their supervisory personnel—the most accurate way of measuring the advantages of Scott Industrial Wipers.

**are better than anything they've ever used for most industrial wiping jobs.**

We expected that years of testing and research had made this a good product. Still, we never thought that Scott Industrial Wipers would catch on so quickly with so many key men in so many different kinds of plants.

Scott Industrial Wipers have only been on the market a few months. But, already, Plant Managers and Superintendents, Industrial and Methods Engineers, Production Supervisors, Head Storekeepers, Purchasing Agents—as well as the workers themselves—have been enthusiastic about them. Here's why:

## **Safety**

Scott Wipers are disposable. This means that harmful filings, oils, and shavings are thrown away, along with the used wipers. Clean edges reduce chances of catching in moving machinery.

## **Cleanliness**

Because a new clean one is always available, you can have a wiper free from chips and foreign matter thus helping eliminate the carrying of dermatitis.

## **Uniformity**

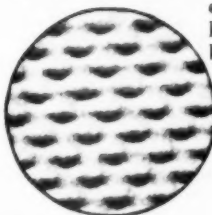
Each wiper is of standard size, color and absorbency. Every inch is a highly effective wiping surface. From experience you will soon know the exact wiping requirements of each job.

## **Versatility**

Soft but strong, Scott Industrial Wipers tackle almost any job . . . from oil wiping and glass wiping to polishing and use on the face and hands.

## **Cost control**

Naturally, with sorting and counting eliminated, expensive controls are no longer necessary. Wiping now can be a budgeted production operation.



*Close-up of wiper surface showing "PERF-EMBOSED" texture which grips dirt and assures thorough cleaning*

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This is only one of many types of ACCO Registered Sling Chains available for lifting castings, sheet steel, pallets, machines, machine parts, quenching baskets, and the like. You can get AMERICAN Sling Chains as small as  $\frac{1}{4}$ " or as large as  $1\frac{1}{4}$ "—with sling, grab, or foundry hooks—or special hooks for plates, etc. They are all individually proof-tested, registered, and an identification ring is permanently attached.

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## **COMING EVENTS**



*In the Field of Safety*

### **Nov. 9-13, New York**

American Public Health Assn., 81st Annual Meeting. (Hotels Statler and New Yorker). Dr. Reginald M. Atwater, executive secretary, APHA, 1790 Broadway, New York.

### **Nov. 17-18, Cincinnati, Ohio**

Third Annual Greater Cincinnati Safety Conference (Sheraton-Gibson Hotel). Kenneth R. Miller, executive director, Greater Cincinnati Safety Council, 1203 Federal Reserve Bank Building, Cincinnati 2, Ohio.

### **Nov. 19, Fort Worth, Tex.**

Ninth Annual Industrial Institute, sponsored by Fort Worth Safety Council and Fort Worth Chapter, ASSE. (Hotel Texas). L. W. Graff, safety director, Fort Worth Safety Council, Majestic Bldg., Fort Worth 2, Tex.

### **Dec. 4, Oakland, Calif.**

Annual Eastbay Area Traffic Safety Conference. C. W. Dreyer, Green Cross, 353 15th St., Oakland, Calif.

### **Dec. 7-8, New Orleans, La.**

Louisiana Safety Conference (Roosevelt Hotel). Charles E. Doerler, conference secretary. Address c/o Caddo Bossier Safety Council, Inc., 610 Edwards St., Box 806, Shreveport, La.

### **Feb. 10, Dayton, Ohio**

Second Annual Miami Valley Safety Conference. (Biltmore Hotel). Marvin Purk, manager, Safety Council, Dayton Chamber of Commerce, Biltmore Hotel, Dayton 2, Ohio.

### **Mar. 7-9, Louisville, Ky.**

Southern Safety Conference and Exposition. (Kentucky Hotel). W. L. Groth, executive director, P. O. Box 8927, Richmond 25, Va.

### **March 10-11, Philadelphia, Pa.**

Twentieth Annual Philadelphia Regional Safety and Fire Conference and Exhibit (Bellevue-Stratford Hotel). Walter W. Matthews, managing director, Philadelphia Chamber of Commerce Safety Council, Architects Building, 17th and Sansom Sts., Philadelphia 3.

### **Mar. 17-18, Indianapolis, Ind.**

Central Indiana Safety Conference and Exhibit. (Claypool Hotel). Jack

E. Gonnell, director, Indianapolis Safety Council, 320 N. Meridian St., Indianapolis 11, Ind.

**Mar. 30-Apr. 1, Pittsburgh, Pa.**

Twenty-ninth Annual Western Pennsylvania Safety Engineering Conference and Exhibit. (Hotel William Penn). Harry H. Brainerd, executive manager, Western Pennsylvania Safety Council, 605 Park Bldg., Pittsburgh 22, Pa.

**Apr. 5-6, Toronto, Ont.**

Industrial Accident Prevention Associations, Annual Convention. (Royal York Hotel.) R. G. D. Anderson, general manager, 600 Bay St., Toronto 2, Ont.

**Apr. 6-9, New York**

Twenty-fourth Annual Greater New York Safety Conference and Exposition. (Statler Hotel). Paul F. Stricker, executive vice-president, Greater New York Safety Council, 60 East 42nd St., New York 17.

**April 14-16, Charleston, W. Va.**

Twentieth Annual West Virginia Statewide Safety Conference. Charles Hopkins, managing director, West Virginia Safety Council, Inc., 316-17 Masonic Building, Charleston 1, W. Va.

**Apr. 14-16, Washington, D.C.**

The President's Conference on Occupational Safety. William L. Connolly, director, Bureau of Labor Standards, United States Department of Labor, Washington 25, D. C., or Chas. F. Alexander, manager, Industrial Department, National Safety Council, 425 North Michigan Ave., Chicago 11.

**Apr. 20-22, Detroit, Mich.**

Michigan Safety Conference. (Sheraton-Cadillac Hotel). Jerry E. Moore, executive secretary, c/o Corporate Service Inc., 2210 Park Ave., Detroit 1, Mich.

**Apr. 20-22, Columbus, Ohio**

Twenty-fourth All-Ohio Safety Congress and Exhibit. (Deshler-Hilton Hotel.) James H. Fluker, superintendent, Division of Safety and Hygiene, Industrial Commission of Ohio, Columbus 15, Ohio.

**May 4-6, Raleigh, N. C.**

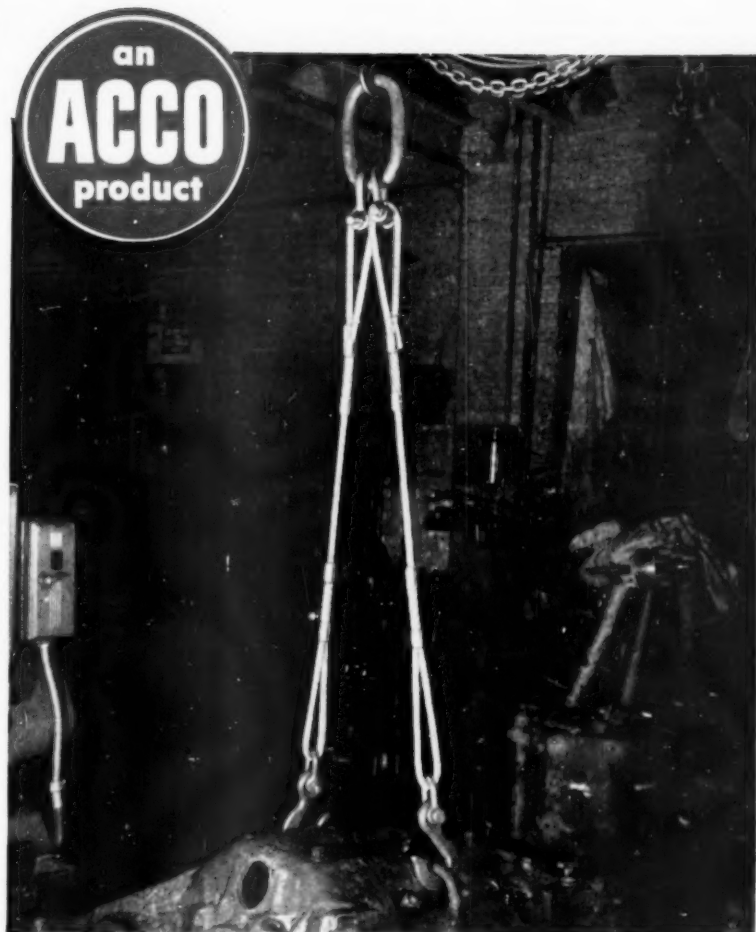
Twenty-Fourth Annual North Carolina Statewide Industrial Safety Conference (Sir Walter Hotel). H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh.

**May 6-7, Baltimore, Md.**

Annual Governor's Safety-Health Conference and Exhibit. (Lord Baltimore Hotel). Joseph A. Haller, director of safety, State Industrial Accident Commission, Equitable Bldg., Baltimore 2, Md.

**Oct. 18-22, Chicago**

42nd National Safety Congress and Exposition. (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 North Michigan Ave., Chicago 11.



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**1 • You Get ALL the Strength You Pay For**—DUALOC® Endings insure against any loss in the catalog strength of the preformed Green Strand wire rope the sling is made of.

**2 • You Lower Your Sling Maintenance Costs**—If damaged, any part of the sling can be replaced in your own shop with another ACCO Registered part of equal strength. No delay. You don't ship the whole sling to have one part repaired.

**3 • ACCO Slings are Stocked by Your Industrial Supply House**—His stock is based on YOUR needs. So, your sling inventory can be held to a minimum since your distributor's stock is as close as your telephone.

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New York, Odessa, Tex. Philadelphia, Pittsburgh,  
San Francisco, Bridgeport, Conn.

**ACCO  
Registered  
DUALOC  
Slings**

# Facts About Welding

(From page 39)

on the acetylene cylinder in the pamphlet, *The Acetylene Cylinder Industry's Unique Container*.

In fully charged cylinders at 70 degrees F., acetylene is usually under a pressure of about 250 pounds per square inch. This pressure must be reduced at the cylinder valve outlet by the pressure reducing regulator. Connecting the pressure-reducing regulator to the cylinder valve on the acetylene cylinder calls for the same practice and precautions taken with the oxygen cylinder, except that acetylene valves should be opened only one and one-half turns.

The same precautions and practice apply in attaching new hose lines except that *acetylene* hose must be attached to the *acetylene* connection on the blowpipe and *acetylene* hose connections have *left-hand threads* and are marked to indicate which connections are for acetylene. Manufacturers usually use red as a standard color for acetylene hose.

## Backfires and Flashbacks

Different types of blowpipes require varied lighting procedures. Manufacturer's instructions must

be carefully followed. Hand burns may result from using matches for ignition. Friction lighters are preferred.

Occasionally, during operation of a blowpipe, the flame may disappear with a loud snap or pop. This backfire is usually a momentary retrogression of the blowpipe flame into the torch tip.

A backfire may be followed by a flashback, a retrogression of the flame and sustained burning back beyond the blowpipe tip. With a flame flashback, the blowpipe oxygen valve, which controls the flame, should be shut off immediately and then the acetylene valve closed.

Causes of backfires or flashbacks may be a loose tip or nozzle, dirty or damaged seat, cracked or distorted blowpipe head. The operator should make certain that the welding head nut, detachable welding tip, or cutting nozzle is tight, and the head is not cracked or distorted. The welding head nut should be tightened with reasonable force. Oxygen and acetylene pressures should be checked to see if they are correct. All seating surfaces of the welding head, tip or cutting nozzle and matching

surfaces in the blowpipe should be examined and wiped clean. Damaged surfaces that fail to seat properly must be resealed with proper tools. If a new nozzle, welding head, or tip, does not remedy the trouble, it is fairly certain that seating surfaces are faulty.

No leakage of oxygen or fuel gases is permitted and will not occur with good equipment, properly connected. Fittings which cannot be made tight should not be forced. Adaptors can be used when necessary, to secure tight connections.

All hose should be examined carefully at least once a week for leaks, worn places and loose connections. Worn or damaged hose should be replaced at once. Acetylene escaping from hose is liable to become ignited. Leaks in otherwise good hose may be repaired by cutting hose and inserting a splice. Tape should never be used.

Hose should be kept free from deteriorating oil or grease and protected from flying sparks, hot slag, hot objects, and open flames. Hose lengths should not be too long, kinked, or tangled. They should be kept from being run over, or tripped over. Connections might be pulled off or cylinders and equipment pulled over.

## Care of Cylinders

Compressed gas cylinders should always be built and filled in accordance with ICC specifications and regulations. Such cylinders are rugged, designed to withstand ordinary and even rough handling, but they should not be dropped, knocked about, or be where heavy articles might fall on them. A suitable truck, chain, or steadying device should be used to keep cylinders from being knocked over while in use. They should never be transported in slings or magnetic lifts where a crane is used to move them. A safe cradle or platform should be used.

Inside buildings, cylinders should be in a well ventilated, well

—To page 144



"I don't think he likes our coffee."



# New Tuffy Team

Cuts Downtime

... and Hoisting Costs



NEW  
**Tuffy**  
HOIST LINE

**Tuffy**  
SLINGS



**High Performance Records** are the rule, wherever Tuffy Slings are used! Tuffy Slings, with patented 9-part braided wire fabric construction, have become leader in a relatively few years... proved their *extra* value to men who must keep sling costs down, safety records clear.

**Now, New Tuffy Hoist Line**, especially constructed for overhead, stiff leg and mobile cranes, derricks and clam shells, matches Tuffy Slings in flexibility, wearability and super-toughness! Tuffy engineers developed a hoist line that passes safety checks after other ropes wear out! Tuffy Hoist Line absorbs load shock and stays on the job much longer than other ropes—according to actual in-use reports!

**No Ordering Troubles**, since you just fill in diameter, length and "Tuffy Hoist Line." No chance for confusion, no complicated specifications! Find out *why* Union engineers are betting their reputations Tuffy Hoist Line will deliver longer service than *any* rope construction used for hoist line. Reeve your crane with Tuffy and see the difference!

## More and More Distributors are Switching to the **TuffyTeam!**

No complicated specifications means fuller distributor stocks for faster service! And, there's a Union Wire depot or warehouse near to back him up! For hoist line, give length, diameter and the name Tuffy—for slings, sling type, diameter, length and fittings! Or, buy Tuffy braided wire fabric on the reel if you do your own rigging!



WRITE for the 48-page Sling Handbook and Rigger's Manual and information on new Tuffy Hoist Line!

**union**



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*Specialists in High-Carbon Wire, Wire Rope, and Braided Wire Fabrics*

## PERSONALS



### W. F. Brown Heads ASSE

WILLIAM F. BROWN, safety director for Consolidated Edison Company of New York, Inc., New York, was elected president of the American Society of Safety Engineers at the Society's annual meeting held in connection with the 41st National Safety Congress.



W. F. Brown

WILLIAM N. COX, acting director, School of Industrial Engineering, Georgia Institute of Technology, Atlanta, was elected first vice-president, and EDWARD B. LANDRY, safety director, United States Post Office Department, Washington, D. C., second vice-president.

J. L. RIDINGER, safety director, Inland Steel Co., Chicago, was re-elected treasurer, and J. B. JOHNSON continues as secretary and managing director.

Members at large of the Executive Committee elected for a three-year term are: Frank A. King, southern manager, Mine Safety Appliances Company, Atlanta,

Ga.; Frank E. Laderer, safety engineer, Farm Bureau Mutual Insurance Companies, Columbus, Ohio; A. H. Zeilinger, superintendent of safety, Colorado Fuel & Iron Corp., Pueblo, Colo.

ROY B. HENDON, of Mt. Prospect, Ill., has been appointed assistant division manager of the Chicago Loss Prevention Department of Liberty Mutual Insurance Company.

Mr. Hendon started with Liberty Mutual in 1937 in Atlanta as desk engineer. He then transferred to Charlotte and later to Spartanburg as resident engineer. In 1950 he served in the company's Boston home office as superintendent of industrial hygiene field service and maintained that post until his promotion.

Mr. Hendon is a graduate of Georgia Tech. and a member of the American Society of Safety Engineers and the American Industrial Hygiene Association.

F. G. NENTWIG has been appointed director of safety and fire prevention for Fisher Body, Division of General Motors. He replaces M. J. McCarthy who retired earlier this year after 27 years of service.

Mr. Nentwig joined Fisher Body in 1940 as chief of plant protection in the Pontiac plant. During World War II, he was protection chief at the Fisher Body Bomber plant in Cleveland. Following the war he was promoted to director of plant protection and fire prevention for the entire division. He is a graduate of the University of Detroit Law School.

Election of three new members to the Board of Trustees of Industrial Hygiene Foundation, Mellon Institute, Pittsburgh, is announced by Andrew Fletcher, president of St. Joseph Lead Company, New York, and chairman of the Foundation's Board.

The new trustees are: A. D. Ross Fraser, president, Rome Cable Corp., Rome, N. Y.; Eger

V. Murphree, president, Standard Oil Development Company, New York; and W. R. Elliot, vice-president—industrial relations, Jones & Laughlin Steel Corp., Pittsburgh.

### Guns Take Toll in Hunting and Homes

The return of the hunting season increases the threat of firearm accidents which take about 2,200 lives annually in the United States, warn the Metropolitan Life Insurance Company's statisticians.

Activities most frequently responsible for firearm fatalities in hunting, the statisticians report, are: walking into the line of fire; the unintentional discharge of loaded guns when men carrying them trip or stumble, or handle the weapon carelessly; and hunters being mistaken for game.

More hunters are killed by the guns of their own companions than by the members of other hunting parties.

The statisticians point out, however, that firearm accidents in and about the home actually account for more fatalities than hunting, and in such indoor places as garages, barns, taverns.

"Firearms are owned and used safely by many people," the statisticians observe, "but many others fail to exercise adequate precaution in handling and storing the weapons. Too often firearms are left where young children can get at them; many inexperienced hunters go afield without proper supervision, and even experienced people in moments of excitement or over eagerness forget the caution required in handling guns safely."

Nearly 90 per cent of all firearm accident fatalities are among males, teen-age boys frequently being the victims. In the insurance experience, the highest death rate from such accidents was at ages 15-19, with ages 10-14 following close behind. Although the death rates during adult life were appreciably lower, every age period contributes to the toll of lives lost.



# From Skin to STEEL

TO GET THE BEST IN  
CLEANING PRODUCTS

*Always* LOOK FOR THE PAX ROOSTER

For every cleaning job from washing your employees' hands and faces to degreasing metals there is a PAX Product specifically designed to do the fastest, best job at the most economical cost.



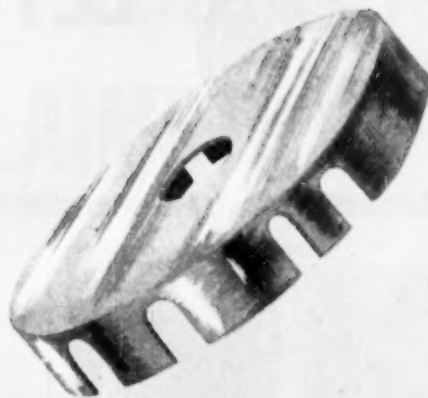
**PAX-LANO-SAV Heavy Duty Granulated Skin Cleanser** is the largest selling skin cleanser in the industrial field. Noted for its safety and effectiveness, it has been awarded the Seal of Acceptance of the Committee on Cosmetics of the American Medical Association. There is also a complete line of PAX powdered and granulated skin cleansers for every special skin cleansing and budget requirement.



**PAX-SOLV Waterless Skin Cleanser** — unsurpassed in cleansing action, safety and economy. Vastly superior to ordinary waterless skin cleansers whose soil removing properties are limited to grease and dirt. In addition to doing an excellent job on these ordinary soils, PAX-SOLV readily removes stubborn stains and a wide variety of substances which ordinary skin cleansers will not remove.



**PAX HECTO INK SKIN CLEANSING CREAM** — efficient, pleasant-to-use cleanser for quick, safe removal of hecto or other duplicator ink



stains. Typewriter ribbon and carbon paper smudges are quickly whisked away.

**PAX DISHWASHING COMPOUNDS** — for machine and hand use—establish new standards of efficiency and thrift wherever they are used.

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When you specify any PAX Product you get as an extra dividend the experience, ability and special know-how of our PAX Research and Testing Laboratory, acquired through more than a quarter-century of continuous research and development.

53-K

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**SHORT BOOTS** — U. S. NEOPRENE RUBBER for heavy industry resists oils, grease, acids. Equipped with Steel Safety Toes, Shockproof Cushioned Insoles. Also available for general use in Tempered Rubber with cleat-type soles.



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**HIGH KWIK ARCTICS** — Built of 100% NEOPRENE rubber for toughest industrial jobs. Snug zippered closing. Comes in cleated or anti-skid soles.



**U. S. ROYAL SNUGLACE BOOTS** — The boot with adjustable laced uppers, flexible shingled ankle construction and steel toes. Shockproof Cushioned Insoles and U. S. Royal Tread soles of Tempered Rubber provide support for arches and non-skid safety.

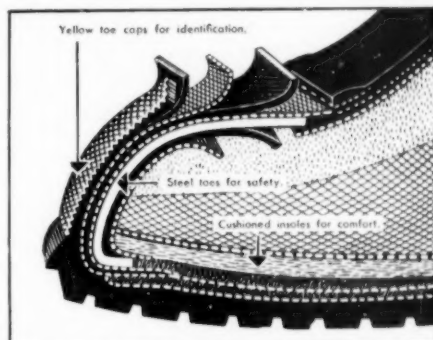


U N I T E D S T A T E S



# INDUSTRIAL SAFETY FOOTWEAR COMPENSATION CLAIMS!

There's a "U. S." boot for almost every job you do—no matter how specialized your work. And "U. S." has "engineered" its industrial footwear line to give you comfort, fit and maximum protection everytime! Special "U. S." Features: You'll want to work in. U. S. NEOPRENE RUBBER is compounded especially to withstand the harmful effects of chemicals, oils, and acids. STEEL TOES built for safety when handling loads. BAR-FLEX SOLES with cleats prevent sag under your weight—give arch support and foot comfort for all-day standing!



**STEEL TOES WITHSTAND 2,000 POUNDS PRESSURE**

This tough steel guard engineered by "U. S." has protected many feet from injury.

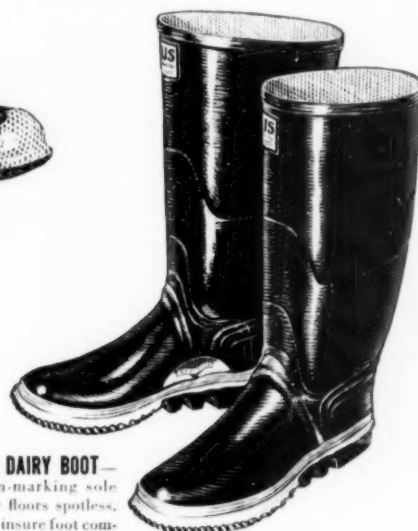


**U. S. ROYAL WORK SHOES**—The boot that's built like a fine shoe. Made of tough tempered rubber. Special "U. S." features: Steel arch shanks and Shockproof Insoles for standing comfort. Also available in plain toes.



**NEW NEOPRENE DAIRY BOOTS**

— Of handsome maroon rubber, these 12-inch high boots are easy-on-and-off; have snug-leg comfort, strap top. Gray anti-slip cleated soles and heels for safety. For standing comfort, "Shockproof" Cushion Insoles.



**NEW BAR-FLEX DAIRY BOOT**—

The white, non-marking sole helps keep dairy floors spotless. BAR-FLEX soles insure foot comfort and arch support.



**NEW HIGH-CUT RUBBERS**—

The high-cut rubbers that pull on, and fit close. Extra height gives extra protection. Available in acid and oil resisting NEOPRENE rubber, or tough tempered rubber. Anti-slip soles.

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ROCKEFELLER CENTER, NEW YORK



# WHAT'S NEW

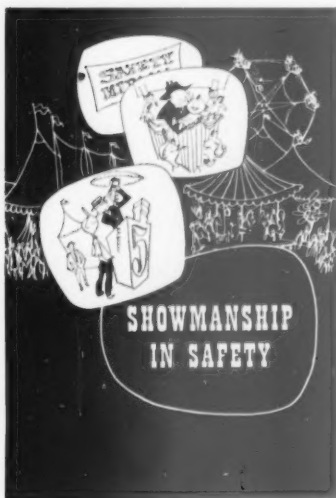
IN

NATIONAL SAFETY COUNCIL SERVICES \*

## Showmanship in Safety

Now it's ready—*Showmanship in Safety*—a book that wraps up in one package the best and most unusual safety promotional ideas dreamed-up in the last 40 years—ideas that have been tried and proved successful.

If you've been looking for a change of pace, a new twist, something new and different to pep up your safety program, you'll find a parade of show-stoppers in this 64-page two-color booklet.



Just off the press, *Showmanship in Safety* is loaded with attention getting gimmicks, eye catchers and publicity stunts—ideas to help you sell safety to your workers in new and appealing ways and maintain their interest month after month.

*Showmanship* tells how to liven up a safety meeting, how to get bulletin boards looked at and remembered. It tells how to get a worker to think safety while off the job. All in all there are more than 160 how-to-do-it ideas to add sparkle and zest to your safety program.



## Operation Safety

From now until Christmas, shopping and merry making will be the principal off-the-job activities of most employees. And with the great frequency of traffic accidents which is characteristic of this time of year, both of these pursuits will be quite hazardous.

Rain, sleet, and snow make the going tough for walkers and motorists. Add to this the pre-occupation of the holiday mood, and the stage is set for traffic trouble.

A timely reminder to employees to drive and walk safely is a must in the face of these conditions. Operation Safety's December leaflet, *Why Do the Bells Ring?* fills the bill.

The leaflet makes a plea to readers to keep the Christmas season a happy one, unmarred by the shadow of a traffic accident.

Printed in striking green on an over-all design of bells and holly, the leaflet resembles a Christmas card. Its message, too, has the friendly, heart-warming ring of a Christmas greeting.

Place these leaflets in handout boxes throughout the plant. Pin copies on bulletin boards. Distribute them with pay checks, house organs or any company literature. Put them wherever they are likely to be seen or picked up by employees.

There are many items in the December Operation Safety kit which would be helpful to you in a plant-wide Holiday Hazards program. For complete information on leaflets and the entire Operation Safety program, write to Operation Safety, National Safety Council, 425 N. Michigan Ave., Chicago.

## Safety Training Institute

The Council's one-week course for qualified safety men will be offered January 18-22 and April 12-16, 1954. "Safety Management Techniques," as this advanced course is entitled, includes public speaking, conference leading, safety training for supervisors, photography for the safety man and other subjects.

Leading members of the Council staff and several outstanding specialists are instructors. All members of the Council staff will be available for personal consultation.

Admirer to senatorial candidate after speech: "Great speech, sir—I liked the straightforward way you dodged those issues."

One woman to another in doctor's waiting room: "Oh, I feel much better now that the doctor's found out there's really something wrong with me."



Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Department.



# Why Your Workers Will Want to Wear



## TUC-AWAY

MODEL 415



**EYE-SAVERS ARE DESIGNED TO PLEASE THE WORKER, AS WELL AS PROTECT HIM**

*Note—failure of the employee to wear the equipment provided to protect him has been the greatest cause of accidents involving the eyes, according to an opinion expressed recently by the Safety Manager of one of America's largest corporations.*



### LIGHTWEIGHT, SMART STYLING

Featherweight construction and attractive design are two important reasons why workers like to wear the Tuc-Away. Weight is only 1 1/4 ounces. Methacrylate lenses are two-thirds lighter than glass.



### REPLACEABLE LENSES SNAP IN, SNAP OUT

Clear or colored lenses can be removed and inserted quickly and easily by the worker. No need for a special repair department to meet different hazard conditions. Once in place they cannot be knocked out.



### SIDE AND BOTTOM PROTECTION

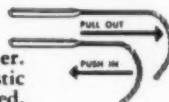
Semi-cup lens provide clear, two-way protection. Also available for bench work with full (1") side shields and regular (1/2") side shields.

### OPTICALLY CORRECT, BETTER VISIBILITY

Cast from methyl methacrylate, the only optical material that is naturally colorless and therefore absolutely clear. No distorted vision to cause eye strain.

### EASILY ADJUSTED TO PROVIDE PERFECT FIT FOR ANYONE

Any pair of Tuc-Aways will fit any worker. All he has to do is telescope the new Plastic Retrax\* Temples in or out. Once adjusted, the temples hold firmly in place. And Retrax Temples save you money — there is no need to stock extra frames of various temple lengths.



### GREATER COMFORT THROUGH "BALL-CHAIN" HOOK CONSTRUCTION

Sturdy, light, all-plastic temples — the first to rival the flexibility and ear comfort of the popular metal Retrax Temples. Plastic "ball-chain" hook design fits comfortably over the cartilage contour behind the worker's ear. Stays on . . . comfortably.



### SURE-FITTING UNIVERSAL NOSEPIECE

Nosepiece fits on the nose. It's a lot more comfortable, leaves no marks, does not pinch the sinuses. And it eliminates the expense of carrying extra size bridge stock.



### SHATTERPROOF, SAFE

Lens will not shatter or throw a splinter into eye. Made just as hard and scratch resistant as possible without becoming brittle.

See Your Eye Savers Supplier, or write direct, for full Information on the Tuc-Away and other modern Watchemoket Safety Glasses.

Quality Eye Protective Equipment

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SAFETY**

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Make the cold winter months SAFE against head hazards with the warm, snug ZERO HOOD that seals out icy blasts.

ZERO HOOD—medium weight (shown above) covers head and ears. Sizes, medium and large.

Also ZERO HOOD with full head, ear and neck protection (not shown). Medium or heavy weight in medium and large sizes.

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## Better Housing for Cannery Workers

**S**AFETY of cannery workers, and the corollary problem of sanitation standards in their camps, has long been a problem in New York State.

As of August 1, 1953, there were 45 cannery labor camps in the State, and approximately 2,300 cannery labor workers, some of whom work interchangeably on the canning crops and also in the cannery.

For nearly 80 years these workers have been protected by the State Department of Labor and by the State Department of Health.

Department of Labor inspectors use Industrial Code Rules as their guide to proper safety standards. In June 1914, one of the earliest of these Industrial Code Rules, "Rules Relating to Sanitation of Living Quarters in Cannery Labor Camps," became effective. The code rule included provisions for floors, walls and roof, interior partitions, air space and windows, water supply, drainage, housing, beds and bedding.

One provision in the first code was criticized. It ruled that all window openings must be protected by mesh, wire netting or other screening to prevent the entrance of any person, but not to interfere with free circulation of air.

This rule had been applied to prevent trespass while encouraging the opening of windows for ventilation. But the screened windows were a fire hazard. In one labor camp fire broke out in the sleeping quarters; most of the occupants got out through the doors. One of the men tried to get out through a window, but the screening could not be opened. He managed to escape through another exit, but suffered some burns because of the initial delay. The new code rule has alleviated this hazard. Windows cannot be obstructed by fixed bars, wire mesh or other material. Insect screening is permitted but it must not be anchored.

The code had another defect that had to be ironed out, and which led to a revision of the code. The State Department of Health also had a sanitary code for farm camps. Inspectors traveled around the State enforcing their code and they covered all the cannery labor camps. In the State Department of Labor, the Division of Industrial Safety Service, under the supervision of Deputy Commissioner Edward A. Nygaard and headed by Director Arthur A. Farrell, had the authority to inspect these camps under the cannery labor camp code. Many times the Industrial Safety Service inspector duplicated the inspection of the Health Department inspector and some complaints arose because of this duplication.

In December 1952, a revision of the code was undertaken to solve this problem. After numerous conferences between top personnel of the State Labor and Health Departments a completely revised rule was worked out. A new set of safety and health standards was prepared to the satisfaction of both departments. Under the new set-up representatives of the Department of Health, or its local offices, visit the camps first. If they find any violation of the code they report it to the Department of Labor.

The Division of Industrial Safety Service of the Department checks the violations. If their suggestions are not complied with, the violator is subject to the State's labor law and prosecution may result.

The new cannery code became effective on May 15, 1953. Under the new code a permit is required for each cannery labor camp. The local health officer in the area inspects the camp and if it meets his approval he issues a permit, in writing, to the camp. He also has the power to issue temporary permits. If the camp does not conform to safety and sanitation requirements, the health officer may issue this temporary permit, as long as the operators of the camp



# The tanker was in flames with 160,000 barrels of high octane gas aboard!

It ignited when it collided with another tanker in the Delaware River. A ten-man Navy team, from damage control training center, Naval Base, Philadelphia, under the direction of Lieutenant Commander Louis O. Lindeman, came to the rescue in the tug U.S.S. Toka. Using Rockwood fire-fighting equipment, here is what they did:



**NAVY FIRE FIGHTERS** using a Rockwood FFF FogFOAM Nozzle direct FOAM into the deck and holds of the burning tanker. Note blanket of FOAM on aft deck.



**APPROACHING TANKER**, Navy Fire Fighters discharge FogFOAM Nozzles on deck of burning tanker extinguishing fire and cooling deck permitting men to board tanker to put out fire in holds.



**MEN ON TUG** cool tanker deck with Rockwood FOAM discharged from Rockwood 2 1/2' FFF FogFOAM nozzle. Note FOAM on men, protecting them from intense heat.



**THE FIRE IS OUT** - and 92% of the cargo saved! During fire-fighting, FOAM was also pumped into tanks below deck. Entire operation took 6 hours. Tanker in distance was cause of fire.



**GET MORE FACTS** about Rockwood equipment by writing for the informative, 12-page booklet "Rockwood Fire Fighting Products," Rockwood Sprinkler Company, Portable Fire Protection Division, 72 Harlow St., Worcester 5, Mass.

## ROCKWOOD SPRINKLER COMPANY

*Engineers Water . . . to Cut Fire Losses*

Portable Fire Protection Division



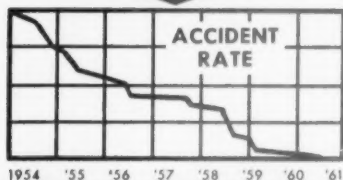
TO STOP THIS



PREVENT THIS



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promise to correct any deficiencies by a certain date. The maximum length of time that a temporary permit is effective is 30 days; every permit expires on the December 31 following issuance. No permit may be transferred or assigned. The health officer has the power to revoke or suspend a permit if he finds subsequent violations. A revoked permit is deemed to have expired and cannot be reinstated; a new permit must be applied for.

Another section of the code requires that operators of the camp must have a caretaker to remove and dispose of refuse.

The code covers every aspect of sanitation and safety. The size of housing must be acceptable in relation to its use and occupancy, and must be reasonably easy to keep clean. The roof and sides must be watertight.

Wood floors must be raised above the ground sufficiently to allow free circulation of air beneath them. Interior partitions must be rigid, opaque and free from open cracks or holes, and must extend to the ceiling or roof or be at least 10 feet high.

Every room must have a minimum of one exterior window at least five feet square; window area must be more than five per cent of the floor area. Any sleeping room having only one window must have an opening at least one foot square located and arranged to provide cross ventilation.

Kitchens must be kept clean and in good repair. Stoves and heating devices must not be fire hazards, nor should they cause dangerous concentrations of fumes and gases.

Sleeping quarters are strictly regulated. All sleeping rooms accommodating more than six persons must have at least two acceptable exits and must be separate from each other as far as possible. Areas above the ground floor used as sleeping quarters must have an outside stairway in addition to an inside stairway. No space more than one story above the ground floor shall be used for sleeping quarters, except with special permission.

No space above two stories is permitted as sleeping quarters. Separate sleeping quarters for each

sex must be maintained. Thirty square feet of floor area must be allowed for each person; if double deck bunks are used, at least 20 square feet must be allowed for each person. Every bed, bunk or cot must be raised at least one foot from the floor, be located at least two feet from the side of any other bunk, bed or cot, and have 27 inches of air space above it.

All bedding and sleeping quarters must be clean and free from vermin at all times. They must be cleaned and disinfected when the health officer so orders. If he finds that such articles constitute a source of danger to the health and welfare of the occupants of a camp or of the general public, and cannot be removed by cleaning and disinfecting, they must be destroyed.

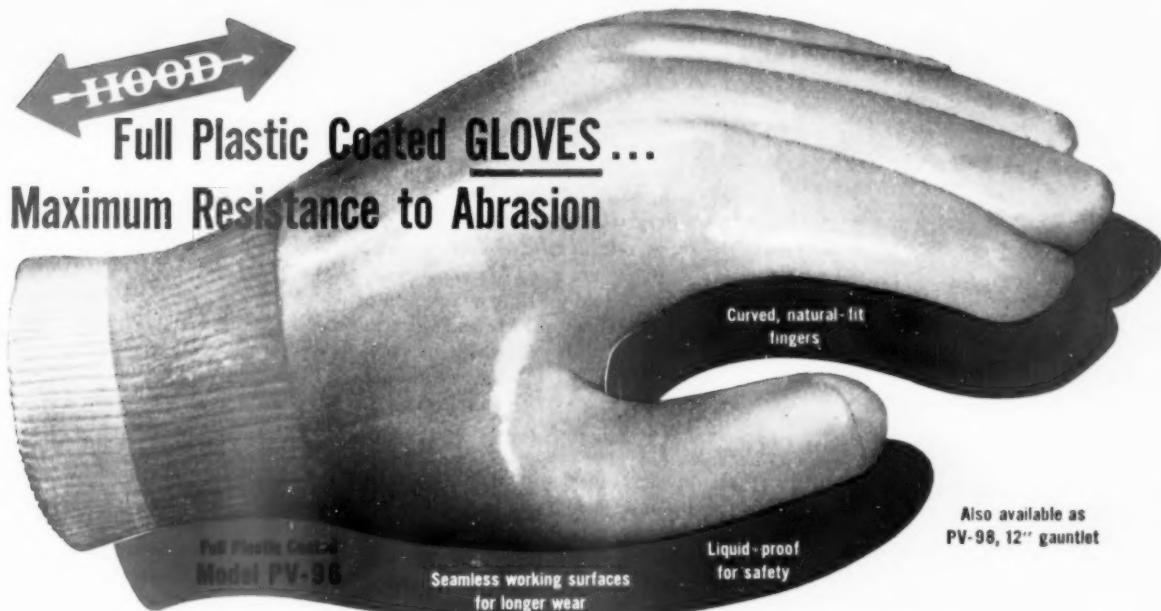
All these regulations add up to a comprehensive code to safeguard the cannery worker.

## Red Cross Adopts Changes in First Aid

TWO MAJOR CHANGES in first aid care have been announced in a new supplement to the American Red Cross First Aid Textbook. The changes, dealing with injuries due to cold and application of tourniquets, have been adopted by the Red Cross on the basis of recommendations made by the Committee on Surgery, Division of Medical Sciences, National Research Council. The supplement also includes the technique for the back pressure-arm lift method of artificial respiration, adopted by the Red Cross in 1951.

The new material advises that a tourniquet should now be applied close to the wound, with unbroken skin between it and the wound. Once the tourniquet has been applied it should not be released, no matter how long it has been in place, except by a physician. Previously first aiders were advised to loosen it every 15 minutes.

The supplement stresses that the tourniquet should be used only for severe life-threatening hemorrhage, which cannot be controlled by other means. Crushing wounds or large lacerations where large arteries are severed, or partial or complete severance of a body part



## Full Plastic Coated GLOVES ... Maximum Resistance to Abrasion

These Hood gloves with *fully* curved fingers give greater comfort, plus maximum resistance to abrasion and wear. Made from a new, scientifically compounded formula which results in a perfectly fused film, these new gloves have a uniform coating with no weak spots. Both benefits have been proved

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Hood makes a complete line of industrial rubber and plastic gloves that will help keep your safety standards high. Write today for our new illustrated catalog featuring the Hood Glove Guide, which shows you "how to choose the RIGHT Glove for EACH job".

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## THE SOLUTION TO AN OLD INDUSTRIAL PROBLEM

### *Contact Dermatitis*



**VEREX**—a general purpose barrier cream widely used in both the office and the plant in the mechanical, textile, chemical, rubber and process industries—protecting the skin against coolants, dirt, grease, inks, cement, sulphur dust, carbon black, etc. Protects against casual contact with poison ivy. Soothing to the skin. Washes off with soap and water.

**CLEREX**—a gel which protects the skin against organic solvents. Forms a continuous, strong elastic skin-adherent film which does not interfere with tactile sensation. The film is insoluble in all anhydrous organic solvents, such as the hydrocarbons (benzene, benzol, toluene, gasoline, varsol, turpentine, kerosene, solvent naphtha), the chlorinated hydrocarbons, nitriles, and the polymerizable monomers (styrene, acrylonitrile, and unsaturated esters for producing polyester resins). Used in making and using paints, varnishes, adhesives, plastics, lacquers, inks, and in metal degreasing using trichlorethylene. Washes off with soap and water.

**HR-CREAM** is a modification of CLEREX (having a vanishing cream base) also used for solvent protection.

**HYDREPEL-A** is a protective composition which forms a continuous plastic film on the skin, protecting it against water solutions. A plasticized ethyl cellulose-castor oil composition, dissolved in an alcohol base, it adheres to the skin in spite of washing with soap, detergents and water. It resists weak acids, alkalis and water solutions of salts and other water-soluble compounds. It may stay on the skin for long periods if desired—without removal. Easily removable by means of an alcohol solution—HYDREPEL REMOVER.

**HYDREPEL-S** is a protective composition useful against more severe exposure than HYDREPEL-A. Here a plasticized ethyl cellulose-castor oil composition is combined with a suitable silicone oil to reinforce its resistance to a variety of reagents. Because of greater cost, recommended only where HYDREPEL-A does not meet required exposure conditions. Easily removable with HYDREPEL REMOVER.

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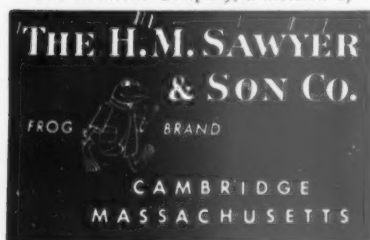
**Wears like iron** — takes endless rubbing, scraping, snagging, and still gives full protection.

**100% Waterproof** — made with top quality base fabric saturation-coated first and then coated with 6 coats of Neoprene Latex.\*

**Positively** will not blister, crack or peel. Its longer lasting quality means greater economy.

*Also:* Three-quarter and long coats, aprons, coveralls and many other styles. All clothing made in black or yellow.

\*Sawyer fabrics are coated by The Brunse Company, a division of



are the only instances where application of tourniquets may be justified.

In the other major change, rapid warming is now advised for victims of frostbite or prolonged exposure to cold. Previously, first aiders were advised to gradually thaw out a frozen part in cool water or in a cool room. Now, they are told to bring a victim into a warm room quickly and rewarm him as rapidly as possible by placing him in a tub of warm, not hot, water or by wrapping him in warm blankets.

The new supplement recommends that until the victim of frostbite can be brought indoors, the frozen part should be covered with woolen cloth or clothing, and the victim warmed and given a warm drink. If the frozen part is still cold and numb it should be rewarmed as rapidly as possible by immersion momentarily in lukewarm but not hot water, or by wrapping in warm blankets. Rubbing a frozen part is not recommended. After the part is rewarmed the victim should be encouraged to exercise fingers and toes.

The new supplement is now being distributed to the more than 36,000 Red Cross first aid instructors throughout the nation. It will be included in all textbooks released in the future. Copies of the supplement may be obtained free through local Red Cross chapters.

**City Launches Study  
Of Alcoholism**

WILMINGTON, Delaware, will be the scene of extensive research in the problem of the alcoholic in industry, conducted by the newly formed Wilmington Association for the Study of Alcoholism which recently moved into its new headquarters.

This will be an attempt to translate and apply broadly and generally the research work being done on alcoholism. The plan is to work not only with Alcoholics Anonymous, but also with interested groups in the general public of the Wilmington area as a program of preventive medicine and to increase understanding of the problems involved.

The A.A. movement has grown extensively in the Wilmington area, due largely to the efforts of Dr. George H. Gehrmann, medical director of the Du Pont Company. While company is not connected with the association, it has encouraged the work with its employees. Dr. Gehrmann, who has fostered A.A. throughout the company and in medical organizations throughout the nation, credits the program with saving the lives of more than 100 men since 1943 and rehabilitating countless others.

Dr. Gehrmann's work was recently granted recognition by the Malvern Institute for Alcoholics and Psychiatric Studies, Malvern, Pa. The first award it has ever given, the institute honored him with a citation of merit for his "leadership and courage" in furthering the treatment and understanding of alcoholic patients.

He believes: "No man should be fired just because he is an alcoholic. If an alcoholic wants to stop he should be given a real chance. He can be helped and he is worth helping. When an alcoholic stops drinking he is a somebody. He is a man of character and intelligence."

Acting on this principle, the program he developed involves extensive work and education with supervision throughout the company as well as among the workers. Meetings are held in plants and offices to acquaint management and employees with A.A. and to break down old stigmas attached to alcoholism.

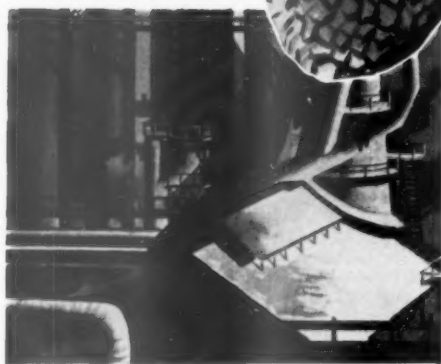
Considerable effort is directed toward getting the alcoholic and his supervisors to recognize alcoholism as an illness, which should be treated accordingly.

As this movement grew, the need became evident for much more extensive work on the same lines, not only with alcoholics, but with the general public. The association was formed to do that job.

While details have not been worked out, the association plans to conduct meetings there with all appropriate civic groups interested in alcoholism to acquaint them with work done on it and the need for treatment of alcoholism as a disease. The program is an attempt to throw light on the prob-



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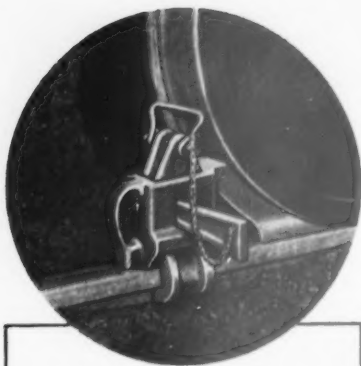


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blems of alcoholism, what a problem drinker is, and what can be done for him. It will also probably bring up to young people of the area the dangers faced in drinking.

Dr. Gehrman emphasizes that this is not a temperance program but one of education to break down the stigma attached to alcoholism and to gain recognition of it as a disease which needs treatment.

## THE READERS' POINT OF VIEW



Comments on topics of current interest are invited. They need not agree with the editors' opinions.

### Troubled with Sparrows?

LA GUARDIA AIRPORT, N.Y.—In September NATIONAL SAFETY NEWS I note "Their Night to Owl." Birds in the hangar nearly gave us "Bats in the Belfry." This note from Jack Skinner, a regional superintendent for maintenance, offers a possible solution:

"Regarding the bird-chase system, prior to moving a new hangar at Amon Carter Field, birds had eaten 30 to 40 sections of the spun glass insulation in the top of the roof. We were never able to run down any concrete information regarding the electric noise system which was supposed to eliminate the birds from the hangar. The contractor suspended five or six small pans on each side of the hangar about one foot from the ceiling. These pans are about 10 inches square and two inches deep. The pans are filled with a race lube grease substance that has entirely eliminated the birds from this hangar. In fact, I haven't seen hide or feather of one.

"It seems this grease gives off an odor which causes birds to stay out of the hangar. However, I have been told it will only work in the summer time. I don't know what the percentage of efficiency will be during the coming winter.

I believe the grease is manufactured by Sinclair."

J. A. O'DONNELL, Supt. Industrial Safety, American Airlines

LAWRENCE, KANS.—So someone from New Orleans wants to frighten sparrows with imitation owls. I can tell you from here how it will work out. In two days the sparrows will be roosting on the owls. Sparrows do not frighten easily.

In our warehouses, pressure stations, and around substations, we use an old 22 rifle with shot shells that will only kill at about 15 feet, but a few shots will keep the sparrows away for a week or two.

The best way is to poison with cooked wheat and strychnine sulfate (1/4 ounce to a quart of wheat). Let the mixture simmer for about an hour with the wheat moist so there will be no liquid run off.

About 9:00 a.m. scatter the wheat on a piece of plywood, so it will not run off, and set it in the plant or near an open door for about two hours. The sparrows (and perhaps a few tame doves) will find it and have the nerve to try it in that short time. At the end of two hours remove what wheat has not been eaten and repeat in about a week.

This year, for the first time in 30 years of raising flowers, I had trouble with sparrows. I am back to this old method my father used around his flour mill in Wisconsin. We killed thousands of sparrows and only got one tame dove and three turtle doves. A covey of quail on the place never touched the wheat.

I hope this will help the man in New Orleans.

W. C. BOARDMAN, Safety Director  
Kansas Power and Light Company

### Praise for "Mr. Hurd"

GRAND'MERE, QUEBEC—Too bad you do not know the identity of Mr. Hardlee B. Hurd. If I had written "Let's Be Practical," I would have signed it Julius A. Draper, and would probably burst a couple of vest buttons over it.

Try to get some more points put over by the same man. His name should B. Hurd.

JULIUS A. DRAPER, Director of Safety  
Consolidated Paper Corporation, Ltd.

# Where **IMPACT** hazard is frontal only...



## You can benefit from these Bausch & Lomb industrial vision services



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## Laboratory Changes Name, Expands Program

BY RENAMING its Haskell Laboratory, the Du Pont Company has pointed up the expansion of its basic research on industrial medicine, which has been an outgrowth of its work in toxicology.

Starting from the relatively narrow base of learning how toxic certain products might be, the program has grown into a major research effort in industrial preventive medicine. In recognition of this, the name has been changed from "Haskell Laboratory of Industrial Toxicology" to "Haskell Laboratory for Toxicology and Industrial Medicine."

The Du Pont scientists have been probing such secrets as the causes and effects of fatigue, basic factors that make clothing comfortable, and methods for the early determination of abnormal heart conditions, as well as investigating the toxicity of chemicals made or used by Du Pont.

To advance the work, the Haskell Laboratory research organization will be moving into a new \$2,000,000 laboratory near Newark, Del., this summer and expects to dedicate it this fall. One feature will be an all-weather room which can range from arctic to tropic.

The most recent activity of the Haskell Laboratory, aside from its regular toxicological investigations, is research on causes of industrial fatigue. This program already is producing results and is projected far into the future. The all-weather room will be an important tool for developing knowledge in this field.

Work of the laboratory is concerned with a broad study of man in his work environment, essentially an industrial, preventive medical program: to promote health and healthy working conditions. This involves evaluation of the effect of exposure to chemicals on the worker, and control of exposure to safe levels.

In addition, scientists will be able to create hot, muggy climates, stir up chilling breezes, plunge

into dry desert heat, or bring on frigid winter. With this control, they will be able to measure precisely the body changes caused by different environmental conditions.

For several years they have been carrying on studies of low-frequency heart vibrations, working on sub-audible changes in tone of the heart with the thought that this may lead to methods for earlier determination of abnormal heart conditions. They have also been working on other aspects of the physiology of circulation, setting up what they believe will prove to be standards of measurement from which doctors can readily determine departures from normal.

Haskell Laboratory was set up in Wilmington in 1935 to test Du Pont products and manufacturing processes to eliminate as far as possible potential hazards to employees and customers. Particular emphasis is placed on research that will reveal early physiological changes caused by the action of chemical compounds, so that adequate preventive measures may be set up in company plants. Information thus developed is used also to instruct customers on the safe handling of products.

As a result, some promising new products have been changed or even abandoned, because of possible hazard to users. In other cases, manufacturing methods have been changed to protect employees.

For this work to be practical and effective, it is necessary that information obtained in the laboratory be correlated with medical studies of workers by the plant physicians. Thus the work moves into the field of industrial medicine, and it has kept it growing as one study led into another.

There are two sides to every question—as long as we are not interested in it.





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## President's Occupational Safety Conference to Meet April 14-16

ON JUNE 9, 1953, President Eisenhower called for intensification of the work of the President's Conference on Occupational (formerly Industrial) Safety. The change in title is for clarification and in no way changes the scope of the Conference. The 1954 Conference will meet in Washington, April 14-16.

Its basic purpose is to save human life and limb, to promote accident prevention primarily in the following classifications of industrial activity: construction, manufacturing, public utilities, trade, services, and government. Although representatives from agriculture, mining and quarrying, railroads and other transportation have sought participation in the Conference and have been welcomed there, other agencies have responsibility for safety in these fields, which the Conference does not wish to duplicate. Home and traffic safety likewise are promoted by other agencies.

Overall work injury figures published by the Bureau of Labor Statistics and the National Safety Council, however, include all these industry groups. These figures are widely used by safety authorities, including the Conference, to indicate the total problem. Some 15,000 occupational deaths and two million disabling injuries occur annually which are estimated to cost American management and labor more than \$1½ billion.

The Conference uses voluntary promotional means to stimulate safety consciousness and the use of safety know-how among American employers and workers in the industries listed above. It works through National, State and local organizations and agencies, both public and private. Special effort is directed toward reaching smaller business, where a higher incidence of injuries occur, and assisting in reducing them.

The resources and cooperation of management, labor, government, educational, insurance and private safety groups are enlisted on a voluntary basis to perform Conference work. The Conference

recognizes that management bears primary responsibility in the plants, firms and businesses for the prevention of accidents. The Conference also recognizes, and its officials have repeatedly stated, that the States and Territories rather than the Federal Government have and should have basic legal responsibility for rendering work places safe. The Conference is not a forum for the endorsement or disapproval of legislation, State or Federal.

The States and Territories are urged to conduct conferences to reduce job accidents within their borders. In the States and Territories where safety conferences have been held, the leadership and support of the Governors have contributed much to success of the plan. Therefore, in areas where no conferences have been held, it is recommended that the Governor's backing be sought.

In intensifying Conference work, committees concentrate on obtaining application of their recommendations in practice. The best recommendations are valueless unless applied.

Eight points emerge from earlier committee recommendations and point to the need for increased action by all groups to achieve the following:

1. Better accident reporting and analysis.
2. Better machine guarding at the source of manufacture.
3. Safety education in schools, colleges and plants.
4. More safety programs in more companies.
5. Greater worker participation in safety.
6. Greater uniformity in State safety codes.
7. More public employee safety.
8. Better public understanding and support of accident prevention.
9. Greater labor-management cooperation for safety.

Mechanic: "The trouble with your car, madam, is that there's a short circuit in the wiring."

Woman Driver: "Well can't you lengthen it a little?"

# STONEHOUSE SIGNS For ACCIDENT PREVENTION



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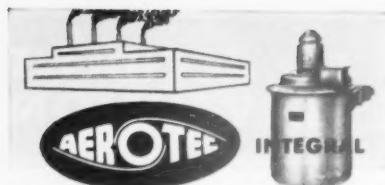
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## Makes Roof Work Safer



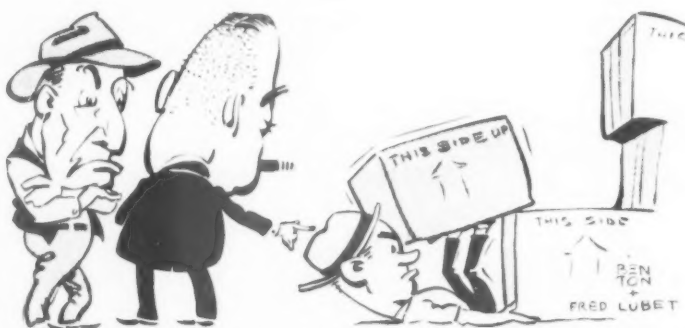
When a lift-truck operator waits with his load, his helper gets ready to fit loading ramp to floor of trailer as it is backed up to new loading platform. All-steel dock-board, easily hand-operated, is raised or lowered to proper height of vehicles.

A PORTABLE ROLLING SCAFFOLD, consisting essentially of a plank with rollers on the bottom, is making roof work easier and safer at the Torrance, Calif., plant of The National Supply Company.

The scaffold is used in putting studs on roof purlins preparatory to new roof installation. Previously, when it was necessary to replace worn corrugated metal roofing, a man had to stand on the slippery iron sheet, bend over open space, and reach out two feet or more to put the studs in place. This was not only slow and dangerous, but also tiring.

Martin Kvilvang, an employee of the company for more than ten years, designed the scaffold. The rollers on the bottom of the scaffold are spaced at the proper distance so that the whole contrivance rolls along the roof purlins. A piece of board, mounted on an angle, serves as a seat and compensates for the slope of the roof.

Seated on the scaffold, the worker pushes himself along with his feet, and has only to lean forward to use the stud gun. His material is handy in the boxes in front of him.



"I think you're stressing lifting with the legs too much."



Are you handling *production metal cleaning and floor maintenance* in your plant with a view to

# PREVENTING FIRES?

You can never be sure that even so-called "safety-solvent" cleaners will be handled with the care required, and you may not be using a safe oil and grease absorbent on your floors where fire hazards exist. Here are two ways to reduce the chances of disaster in your plant:

## **1 Use Wyandotte metal cleaners in water solutions; they are completely nonflammable.**

Whether your operations involve hand, tumble, soak, spray or electrolytic cleaning, there are efficient Wyandotte metal cleaners, for use in water solutions, that eliminate the chance of fire or explosion in your plant from this source.

### **Cleaning between manufacturing operations.**

Wyandotte alkaline cleaners are, of course, completely nonflammable. Wyandotte emulsion cleaners, particularly NORDALL\*, are exceptionally safe with high flash points and very low volatility. When used mixed with water in spray-washing machines, fire hazard is practically nonexistent.

**Rustproofing after cleaning.** Water solutions of Wyandotte products, like R-2 or PRE-FOS\*, or water emulsions of products such as NORDALL, give excellent protection to cleaned parts without the dangers inherent in solvents or oils.

**Cleaning and phosphating before painting.** Completely safe paint preparation is possible when you use Wyandotte PRE-FOS in soak or spray-type setups. Another product used in water solution in hand-wipe preparation.

**Paint stripping.** Both Wyandotte alkaline and organic solvent-type paint strippers are nonflammable.

**2 Wyandotte ZORBALL, the outstanding all-purpose floor absorbent, does not support combustion.** Oil spillage around machines and tanks and under conveyors is many times un-

avoidable. Wooden block floors, in particular, may become thoroughly oil soaked in a short time. These are well-known danger points. You can combat them with Wyandotte ZORBALL — it will not support combustion even when saturated with oil, paint, solvents, grease. It remains skidproof; will not break down, mud, cake or dust. Harmless on all surfaces, it is the most effective, safest, lowest cost floor absorbent you can buy.

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## Cat Nips—Another Menace to Meter Readers

PEOPLE usually try to avoid "going to the dogs," but Ray McAuley, a Portland, Oregon, meter reader, might well prefer this to "going to the cats."

An item from the *Pacific Power and Light Company Bulletin* tells why.

While making his regular rounds of meter reading in Southwest Portland, McAuley groped his way into the basement below a drug store. He read the meter and prepared to leave. His flashlight put the spotlight on a large, yellow tomcat. It seemed affable enough as it sidled up to McAuley as though to invite being petted. McAuley was a busy man, and there were still many meters to read that day. He ignored the usual social proprieties, and hurried up the stairs. Evidently, what rhymes with bell has no fury like a feline scorned.

McAuley reached the top of the stairs and was about to open the basement door. As he did so, the cat showed just how it felt about being ignored by springing to the attack. McAuley admits he yelped a startled war whoop and beat a rather hasty retreat into the store. Inspection of the damage revealed that McAuley had suffered—in addition to his punctured dignity—"cat bites" in three places on his leg. The owner of the store and the pugnacious cat, quickly applied first aid.

McAuley was all set to continue on his rounds when he noticed his wounds were bleeding profusely. The cat's sharp teeth had bitten through to a blood vessel. Ray hurried his hurt hide to a doctor.

McAuley still reads the drug-store meter, but now the druggist locks the offending cat in the wash room, when Ray makes his appearance. McAuley appreciates the druggist's concern. Whether or not he appreciates cats is, of course, open to debate.

"Have any of your boyhood hopes been realized?"

"Why, yes. When my mother used to comb my hair, I wished I didn't have any."

# DIRTY GLASSES

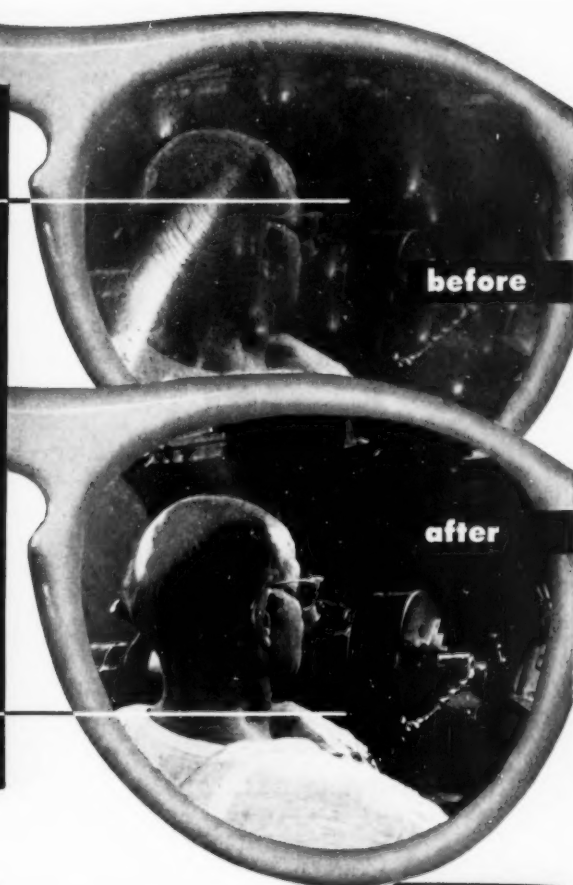
like dim lights and dull tools . . .

## are DANGEROUS

## Keep them clean

## ... with SIGHT SAVERS

the DOW CORNING SILICONE treated tissues



### Promote Your Eye-Safety Program with Sight Savers

Accidents, work spoilage, lost time directly traceable to foggy vision, cost American industry millions of dollars a year. This loss could be drastically reduced by making it easy for employees to keep eyeglasses and safety glasses clean.

Sight Saver Cleaning Stations solve this problem. There's no muss, no fuss, no fluids, no wasted time. Sight Savers encourage workmen to wear their safety glasses all the time because Sight Savers make it so easy to keep their glasses clean, and the cost is but a few cents a day.

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#### Preferred by Thousands of Manufacturers

Tens of thousands of SIGHT SAVER Cleaning Stations are in use in every type of industrial plant, in drafting rooms, laboratories and offices. Installations range up to 200 units per plant. Most Safety Directors specify Sight Saver Cleaning Stations because the superiority of SIGHT SAVER tissues has been proved by world-wide distribution and habitual use by millions of people.

- promote safety
- increase productivity
- reduce waste and lost time
- improve morale



## Available\*

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Cat. No. 60 Black Dispenser	-----	\$2.50
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Cat. No. 65 Refill Packet of 800 tissues	--	\$1.45

\*Write Dept. DZ-11 for list of Safety Supply Houses in your area.

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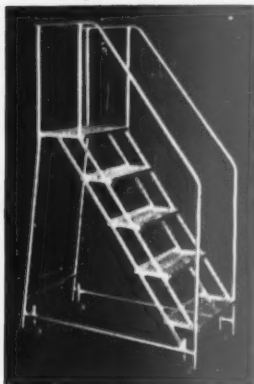
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Mounted on Swivel Brake Casters which allow the  
ladder to be rolled freely when no one is on it.  
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All are made in either 30" or 26" width.  
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## Quotable Quotes

. . . From DR. J. L. ROSENSTEIN

Retirement should not mean inactivity. Inactivity means deterioration. Persons wanting to "die in harness" are bound to be unhappy if no post-industrial leisure-time interests are provided.

\* \* \*

Industry, which feels obligated to give monetary reward for loyalty in the form of pension, should also feel obligated to think of the mental health of pensioners and see to it that some form of activity is planned for post-industrial life. Otherwise pensioners may "rocking-chair" themselves to death in a very short period.

\* \* \*

Aside from the financial problems, men do not like retirement because they wonder, "What are we going to do with ourselves?" There is also the fear expressed by the attitude, "Why, I'll go crazy doing nothing."

\* \* \*

"Laziness" is an inadequate term for use by modern industry. The so-called lazy man may be listless because of lack of interest, feeling of unfairness on the part of his boss, or some outside difficulty that keeps him from doing his best.

\* \* \*

Man says, "Society will suffer unless woman stays in her place, which is home." It seems that, with all the social problems in the world to which man pays little attention, this one is receiving too much emphasis. "The more noble the reason, the less likely it is to be the real one," may well be applied here.

\* \* \*

Man-made tradition alone limits the field in which women may work, though there is an unlimited field for men. In our modern day it may indicate that man is compensating because of a fear of loss of self-esteem if it should be discovered that a woman can do his job as well as, or better than, he can.

\* \* \*

Depending on the degree of disturbance, emotions are states in which mental life approaches the zero stage. Under violent emotions we are mentally blank. Under milder conditions our behavior may be scattered and uncontrolled but never cool, calm, and collected.

DR. J. L. ROSENSTEIN is Industrial Psychologist, University of Miami, Coral Gables, Fla., and formerly Professor in the Department of Management at Loyola University, Chicago. These excerpts are from his *One Day Course in Human Relations for Supervisors*.



# Bump that assures positive results

**When fire strikes, seconds count . . . your fire extinguishers must be the right type and function properly from the very start . . . failure means serious losses.**



The growing popularity of the highly effective powdered dry chemical fire extinguishing agent may be hampered by a drawback . . . settling or packing can occur after a lapse of time. However, with C-O-TWO Dry Chemical Type Fire Extinguishers there's no chance of this happening.

The exclusive inverting and bumping design of C-O-TWO Dry Chemical Type Fire Extinguishers provides mechanical breakage of the dry chemical by shifting its position in the cylinder. This outstanding mechanical breakage, plus continuous inert gas pressured agitation or fluffing of the skillfully blended free flowing dry chemical, guarantee lasting, foolproof fire protection.

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## Atomic Tracers Aid Cleanser Research

ATOMIC ENERGY usually brings to mind a tremendous explosive force, but radioisotopes from the laboratories and the nuclear reactor of the Atomic Energy Commission at Oak Ridge, Tenn., are being used in research to develop new and better cleansing products.

Beginning in 1947 Wyandotte Chemicals Corp. has pioneered in the application of radioisotopes to studies of detergency and cleaning problems. Some of these radioisotopes are products such as sulphur or carbon with which we are all familiar but differing from ordinary variety which we know in one important respect. They are radioactive. This means that these materials break down continuously to form new products. In this breakdown, portions of the starting materials are thrown off as small particles which can be detected with a Geiger counter. The ability to detect and measure the amount of these radioisotopes with a Geiger counter is being put to use in Wyandotte's nucleonics laboratory to study the cleaning action of their products and to aid in developing better cleaning agents.

The quantity of a radioisotope required for this experimental work is almost fantastically small because of the ease and accuracy of measuring quantities present. For example, a shipment of Carbon 14 (the radioactive form of carbon) from Oak Ridge might weigh only a thousandth of an ounce. Yet if one ounce of this material were converted to soda ash, mixed with two million pounds of regular soda ash and the soda ash converted to ten million pounds of rubber reinforcing pigment, the original small quantity of radioactive carbon could be detected in every ounce of the rubber pigment by means of the Geiger counter and the actual amount of Carbon 14 could be measured. This is an example of the minute amounts of radioactivity necessary for detection.

Work with radioactive isotopes

at Wyandotte is confined to experiments in the Nucleonics laboratory where they are used to determine how well experimental cleaning formulations will clean. Often visual cleanliness is insufficient. Metal articles must be perfectly cleaned prior to being plated since the least trace of some soils may cause the plating to fail to adhere properly.

To detect these invisible films of soil or dirt is normally impossible. However, Carbon 14 may be converted into a synthetic oil and mixed with ordinary oil. When this radioactive oil is used as a soil, the amount of oil which has been applied to the metal article can be measured precisely and after cleaning the amount of soil remaining can be determined exactly, even though the quantity is too small to be visible to the eye.

This ability to measure precisely the amount of cleaning which has been accomplished by various products against typical soils will aid in the development of new and more effective cleaning agents. Not only for metal cleaning but also for commercial laundries, food processing and handling establishments and general maintenance of buildings and equipment.



"When Ed inspects . . . he inspects."

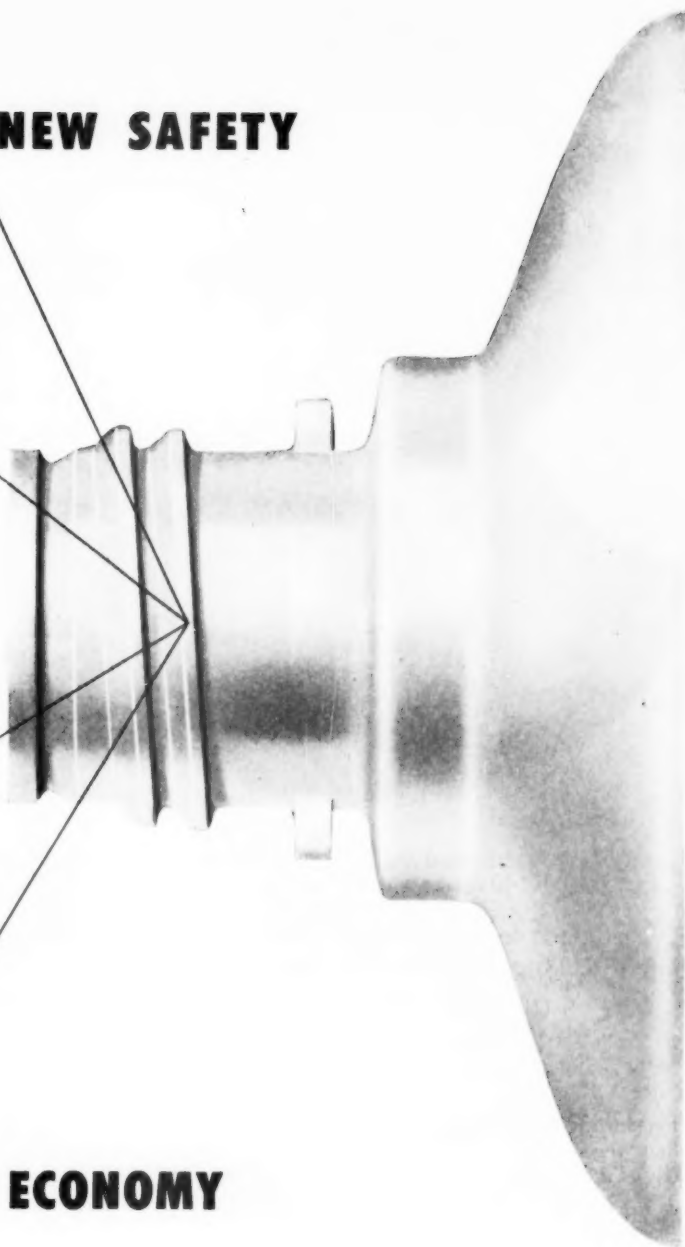


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capacities, either naked or enclosed in a plywood jacket. Made of inert polyethylene, they are resistant to acids and alkalis. They can be frozen without damage.

**YOU CAN ELIMINATE BREAKAGE PROBLEMS** in your plant—improve your handling, use and storage of hazardous or expensive chemicals—increase your protection of people and equipment—by adopting Plaxpak car-

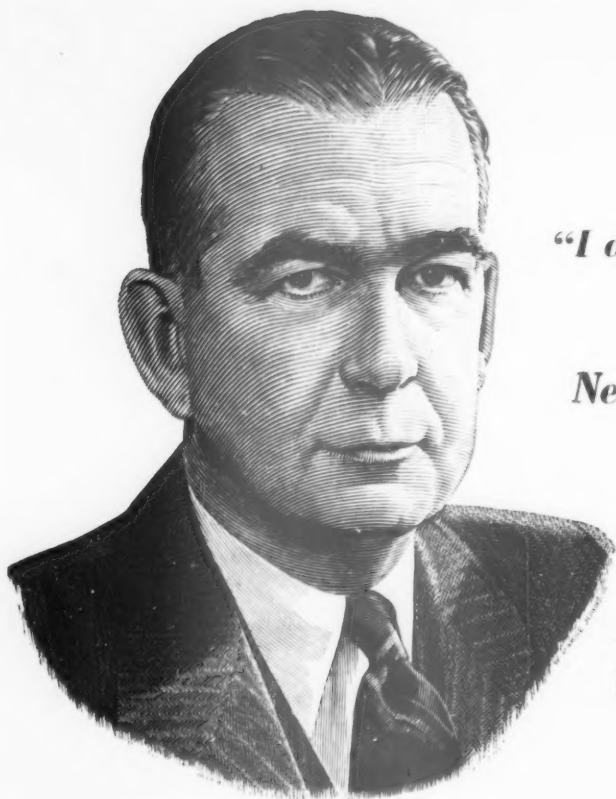
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**PLAXPAK CARBOYS . . . the safe, saving way to handle bulk liquids**



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*"United States Savings Bonds are an ideal backlog investment for every employee, whatever his age or his earnings bracket. When bought automatically and conveniently through the Payroll Savings Plan they are almost 'painless' savings. I am one of many thousands of the employees of Newport News Shipbuilding and Dry Dock Company who regularly save every payday for investment in Savings Bonds through our Payroll Savings Plan. The security of the Nation rests upon the security of its individual citizens and all employees who practice the American habit of thrift are contributing to the national security as they provide for their own future."*

Fortunately for America, industry and business recognize that "the security of the Nation rests upon the security of the individual."

More than 45,000 companies offer their employees the Payroll Savings Plan. In many of these companies more than 60% of the employees are Payroll Savers—in some, participation is 75%, 80%, and higher. But, in others participation is low—sometimes less than 25%.

Why does Company A have an employee participation of 75% while Company B—about the same size, in the same industry, with the same wage scales—has less than 25% of its employees enrolled in the Payroll Savings Plan? Is it because the employees of Company B are not concerned about their future, have no interest in personal security?

Men who head up industry-wide committees for the promotion of the Payroll Savings Plan... members of the Payroll Savings Advisory Committee... State Directors of

the Treasury Department—any of these men can give you a quick answer:

"In every company with a good Payroll Savings Plan you'll find a top executive is heart and soul behind the plan—and everybody in the company, down to the last man in a subsidiary plant, knows it. When you find a company with a poor Payroll Plan the 'top man' will tell you, 'Yes, we have a Payroll Savings Plan... No, I don't know how many employees are enrolled or what the average monthly saving is. Mr. ——— takes care of that.'"

Currently, upwards of 8,000,000 men and women are enrolled in the Payroll Savings Plan. The 1954 goal—9,000,000—can be exceeded if you and other executives will take a personal interest in your company's Payroll Savings Plan. Any information and all the help you need to build a successful Plan can be obtained promptly from Savings Bond Division, U. S. Treasury Department, Washington Building, Washington, D. C.

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**NATIONAL SAFETY COUNCIL**



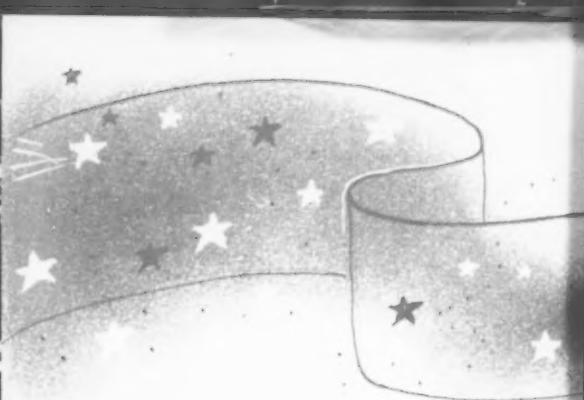




## *the fight for life*



**a report on the 40th year of the National Safety Council**

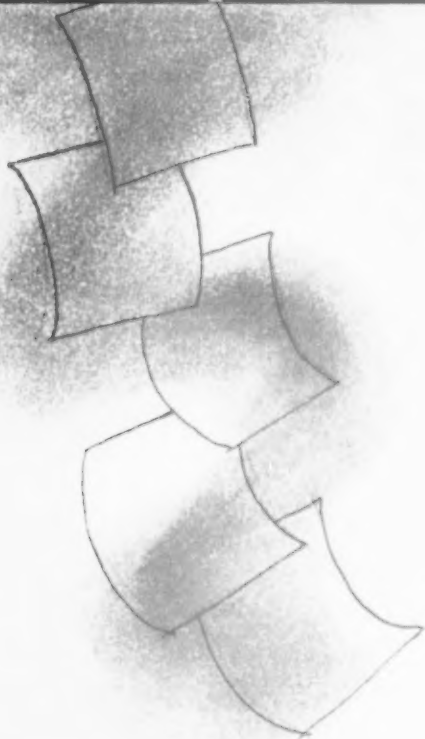


The National Safety Council received a real birthday present this year on its fortieth anniversary—a federal charter!

This was the gift of gifts for the Council—something we had wanted for years, something we feel will be of incalculable value to the Council and to safety in the years ahead.

How?

Well, this charter—passed by the Congress of the United States and signed by President Eisenhower on August 13—means that the United States Government has formally recognized the importance of the accident problem and the work of the National Safety Council. In a sense, Uncle Sam has said to the Council: "Keep right on trying, harder than ever, to reduce the accident toll. I'm with you, and will be in there fighting alongside you and the thousands of public-spirited citizens who are





enlisted in the vast safety army."

Physically and operationally, the new federal charter means little change in the structure, purposes and activities of the Council. The same officers, directors and trustees will remain in office, subject only to the usual annual elections. The Council remains a privately-financed and operated organization. It is still not a part of the government, nor will it receive government appropriations.

But actually and practically, the charter means much to the Council. It bestows the prestige of governmental blessing now enjoyed by such public service organizations as the American Red Cross, the Girl Scouts and the Boy Scouts. It stamps the Council's four decades of work and its present stature and character with a seal of approval. The Congress of the United States has examined our efforts and has found them good.

The charter has even more signif-

icance, because it opens wider doors to the future. It inspires us to work harder than ever to influence the public attitude toward safer living.

The safety movement is still young and virile. It has many years ahead of useful, essential service to the country. We at the National Safety Council honestly feel the Council has come a long way in these 40 years. A big job has been done in every phase of safety—industrial, traffic, home, child, farm.

But while the public is accepting safety more than ever before, a still bigger job remains. This job the National Safety Council pledges itself to undertake vigorously, relentlessly, courageously.

The new charter is a challenge to the Council to better work and greater effort. It offers wider opportunities. And with the help of all the fine people who are now working so hard for safety, we will not fail.

*Neil H. Dearborn*

President

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### ***national safety council***

1952-1953

The public service part of the Council's work is financed partly by contributions and special grants sought under the auspices of the Council's trustees. Last year the contributions and grants for this work amounted to \$538,023, and the cost of the work was \$955,564. The difference was made up by the Council, out of income from dues and sales.



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## ***national safety council***

1952-1953

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## the problem

### **Accidents** in the past year:

took the lives of 96,000

caused 9,600,000

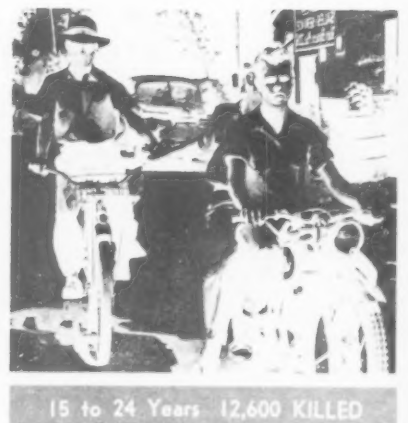
cost the nation \$8,700,000,000



Under 5 Years 8,800 KILLED



5 to 14 Years 6,100 KILLED



15 to 24 Years 12,600 KILLED

**Accidents** take a deplorable toll among people of all ages. The effects of accidents among the younger half of the population, however, are a national catastrophe.

**Accidents** are the leading cause of death among people from 1 to 35 years of age.

**Accident** deaths of children exceed the combined totals of the seven most deadly diseases.

**Accidents** are the leading cause of lost working years of life, each year depriving the nation of more than 1½ million man-years of productive work.

American men, women and children.

INJURIES, including 350,000 permanent impairments.

an average of \$200 per household.



25 to 44 Years 21,900 KILLED



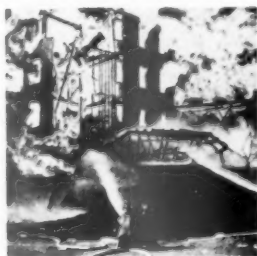
45 to 64 Years 19,800 KILLED



65 Years and over 26,800 KILLED

**Accidents** produce economic and social loss, impair individual and group productivity, cause inefficiency and retard the advancement of standards of living.

The elimination of accidents is vital to the public interest.



## **marshalling the forces**

In 1912, at the First National Safety Congress, the pioneers of organized safety recognized that the embryonic Safety Movement needed the leadership of a national organization devoted to this single objective. In response to this need the National Safety Council was organized the following year.

The Council is the rallying point for the forces of safety. It is a cooperative association of groups and individuals working together for the prevention of accidents of all types. It is democratic in concept, its strength lying in the voluntary participation and active support of all who are in a position to promote safety. Non-commercial and non-political, it is concerned with every aspect of accident prevention and its membership and field of interest are nationwide.

The size and complexity of the accident problem require the acceptance of responsibility not alone by individuals but by organizations and agencies, such as are found in agriculture, transportation, business and industry, civic enterprises, health and welfare work, education, government and labor.

The Council's organizational, financial and membership structure is purposely broad and flexible so that it will provide continuity of operation and always serve as a place for group planning and execution by all who take part in the Safety Movement.







MANUFACTURING COMPANIES

INDIVIDUALS

PARENT ASSOCIATIONS

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LOCAL GOVERNMENT

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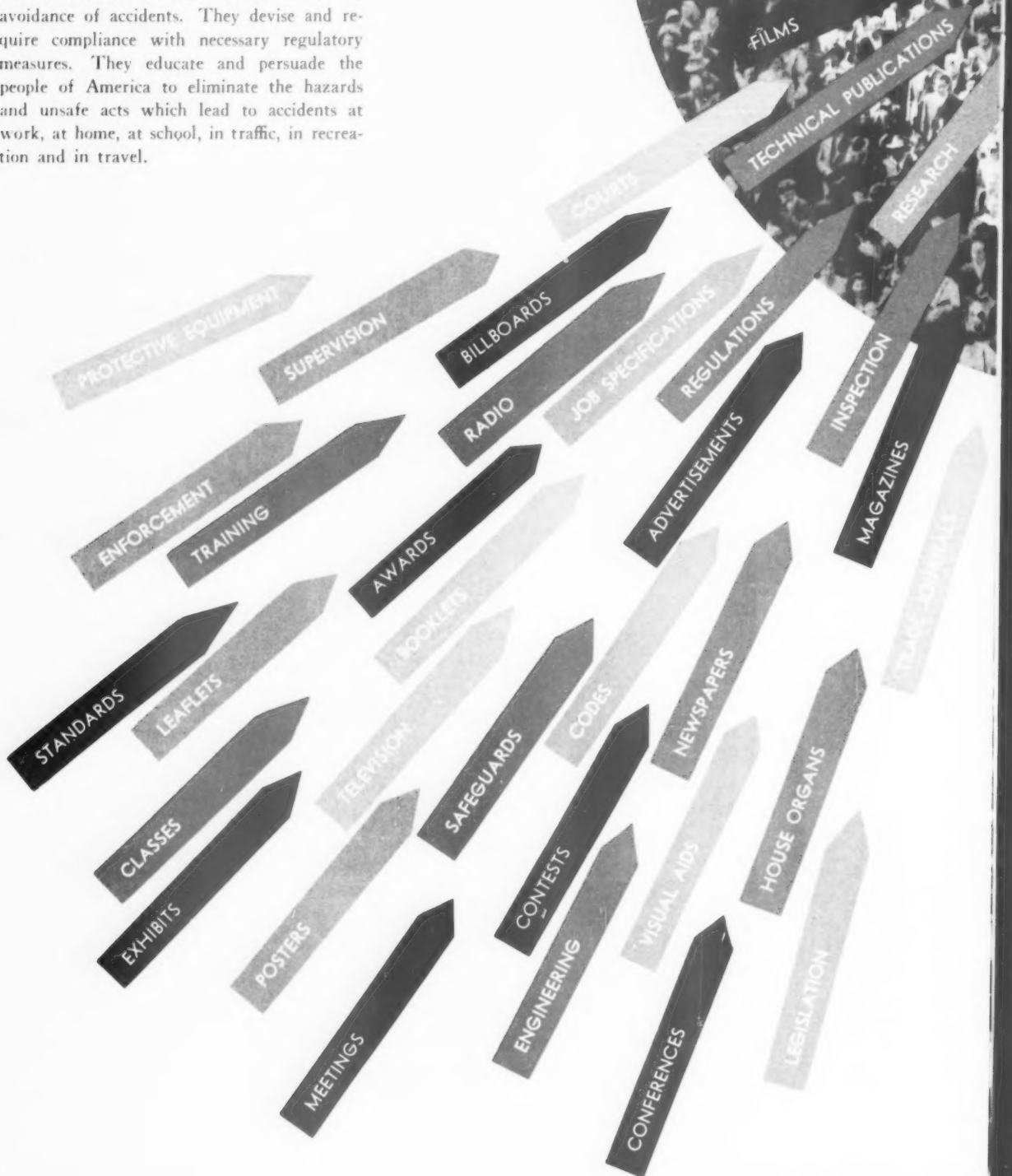
EDUCATOR ASSOCIATIONS

FEDERAL GOVERNMENT

CHURCHES

# the attack

The militant forces of the Safety Movement attack with every weapon at their command. They erect physical barriers to accidents. They develop a sense of individual responsibility and an attitude of mind conducive to the avoidance of accidents. They devise and require compliance with necessary regulatory measures. They educate and persuade the people of America to eliminate the hazards and unsafe acts which lead to accidents at work, at home, at school, in traffic, in recreation and in travel.



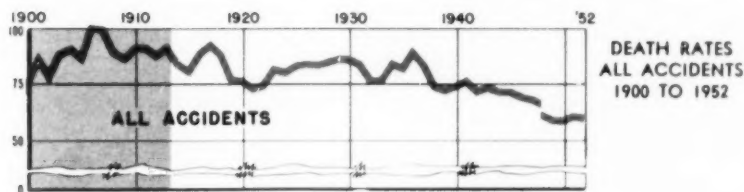


### ***We are gaining ground***

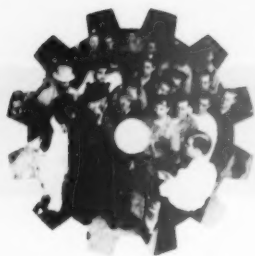
The accidental death rate dropped 1% during the past year. While the reduction is considerably smaller than the forces of safety had hoped to effect, it represents a saving of over 1,000 human lives when compared with the death rate for the previous year.

### ***535,000 lives have been saved***

Accidental death rates have been greatly reduced since the national safety movement was formally organized. Had the average annual rate for the period from 1900 to 1912 remained unchanged, an additional 535,000 fatal accidents would have occurred.

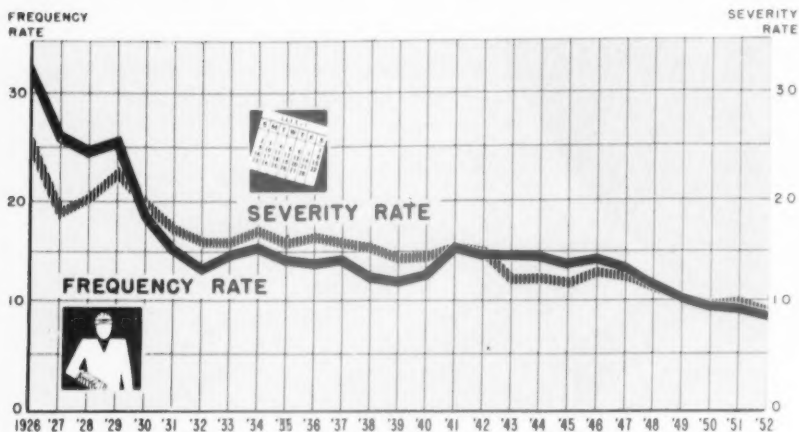


Details of current progress in specific fields of accident prevention activity are reported on the following pages.



## Industrial Safety

Injury rates of member companies reporting to the National Safety Council were reduced for the sixth consecutive year in 1952.



The injury frequency rate in 1952 was:

- 7% lower than the previous year
- 21% lower than the previous 5-year average
- 42% lower than the 1941-1945 average

The injury severity rate in 1952 was:

- 9% lower than the previous year
- 16% lower than the previous 5-year average
- 32% lower than the 1941-1945 average

The injury rate of non-member industrial plants continued to average about 70% higher than the rates of Council members.

### Organization and Services

The Industrial Conference has been strengthened through the work of its nominating committee in carefully selecting members whose service on sub-committees and attendance at meetings has made this body a vital, working organization attuned to the needs of American Industry. Policies shaped by the Conference are responsible for marked improvement in industrial services and publications.

Written requests for technical and program information were answered at an average rate of twenty per day during the past year, an increase of about 13% over the total of 4,500 such requests in the previous year.

### Sectional Activity

The Industrial Conference has initiated a comprehensive study of the activities of its 27 Sections. This will result in a clearer understanding of the scope of interests for each Section and the duties and responsibilities of the staff representatives. Manuals defining these functions and relationships will be prepared.



Vice-President For Industry—DR. W. P. YANT, Director of Research & Development, Mine Safety Appliances Co., John T. Ryan Memorial Laboratory

### Industrial Conference 1952-53

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 M. F. BIANCARDI, Mgr., Health & Safety Dept., Allis-Chalmers Mfg. Co.  
 J. R. BOLLMAN, Safety Director, Procter & Gamble Co.  
 WALTER BOON, Safety Director, Sun Oil Co.  
 MILTON BOWMAN, Commissioner of Empl. Acc. Control, Cleveland, Ohio  
 R. M. BOYLES, Director, Industrial Relations, Midwest Rubber Reclaiming Co.  
 FRED W. BRAUN, Vice-President of Accident Prevention, Employers Mutual Liability Insurance Co.  
 ALLEN L. COBB, Safety & Fire Prevention, Eastman Kodak Co.  
 HARRY L. COIN, Safety Director, Fisher Body Divn., General Motors Corp.  
 JOHN A. DICKINSON, Chief, Section of Safety Codes, National Bureau of Standards  
 J. C. DITTMER, National Lead Co.  
 T. R. DONOGHUE, Safety Director, Pittsburgh Plate Glass Co.  
 R. P. DOUGLAS, Safety Director, The Detroit Edison Co.  
 H. B. DUFFUS, Manager, Accident Prevention Service, Westinghouse Electric Corp.  
 D. A. FARRELL, Supervisor of Safety, United States Steel Co.  
 R. H. FERGUSON, Assistant Director, Industrial Relations, Republic Steel Corp.  
 C. N. FOGG, Safety Director, Simplex Wire & Cable Co.  
 FLOYD E. FRAZIER, Industrial Division, National Association of Mutual Casualty Companies



MRS. MAREN FRYE, R. N., Union Carbide & Carbon Corp.  
 C. S. GIBSON, Safety Director, Mines Accident Prevention Assn. of Ontario  
 H. B. GOODRICH, Maintenance & Safety Engineer, Strathmore Paper Co.  
 HOWARD GRAMLICH, General Agricultural Agent, Chicago & North Western Ry. System  
 G. O. GRIFFIN, Safety Director, Dravo Corp.  
 JAMES J. GRIFFIN, Coordinator of Safety, Chicago Public Schools  
 JOHN V. GRIMALDI, Assistant Manager, Accident Prevention Dept., Assn. of Casualty & Surety Cos.  
 R. P. HAMILTON, Supt. of Safety, St. Louis-San Francisco Ry. Co.  
 W. L. HANAU, Assistant Superintendent, Engineering Dept., Fidelity & Casualty Co. of N. Y.  
 EARLE S. HANNAFORD, Supervisor, Employment & Training, Long Lines Dept., American Telephone & Telegraph Co.  
 GEORGE W. HARPER, Assoc. Prof. of Mech. Eng., College of Engineering, University of Illinois  
 R. A. HARSCHNEK, Safety Director, Swift & Co.  
 F. J. HILLGRUBER, Safety Director, National Cash Register Co.  
 HOWARD HOLLAND, Supervisor of Safety, Youngstown Sheet & Tube Co.  
 GEORGE A. JACOBY, Director of Personnel Services, General Motors Corp.  
 ARTHUR S. JOHNSON, Vice-President & Manager, Engineering Dept., American Mutual Liability Ins. Co.  
 G. SCOTT KALLENBAUGH, Asst. Supt., Div. of Safety & Hygiene, Industrial Commission of Ohio  
 W. DEAN KEEFER, Second Vice-President, Lumbermens Mutual Cas. Co.  
 F. W. KELSEY, Safety & Welfare, Jones & Laughlin Steel Co.  
 E. W. KEMPTON, Assistant Vice-President, Industrial Relations, United States Steel Co.  
 R. M. KRAMER, Branch Acc. Prev. Mgr., Employers Mutual Liability Insurance Co.  
 E. B. LANDRY, Office of Postmaster General, U. S. Post Office Dept.  
 ALFRED R. LATEINER, Supervisor, In-plant Training, The City College of New York  
 T. R. LEADBEATER, Safety Director, Todd Shipyard Corp.  
 IVAN F. LeGORE, Manager, Accident Prevention Bureau, Portland Cement Association  
 HAROLD F. LILLIE, Director, Lansing Safety Council  
 S. M. MACCUTCHEON, Director of Safety, Dow Chemical Co.  
 G. S. MANSFIELD, Safety Dir., Western Printing & Lithographing Co.  
 MISS MARION E. MARTIN, Commissioner of Labor & Industry, State of Maine  
 MISS ERNA MAYRER, R. N., E. I. du Pont de Nemours & Co., Inc.  
 C. P. McBRIDE, Personnel Manager, Pabst Brewing Co.  
 CHARLES A. MILLER, Division Manager, Personnel Dept., The Texas Co.  
 H. C. MILLER, Director of Training, Continental Can Co., Inc.  
 ERLE S. MINER, Safety Engineer, American Telephone & Telegraph Co.  
 A. E. MINOR, Safety Supervisor, The Ontario-Minnesota Pulp & Paper Co., Ltd.  
 C. F. MOBERG, Safety Director, Kraft Foods Co.  
 WALTER E. MONTGOMERY, Safety Director, Quebec Asbestos Mining Assn.  
 ROBERT S. MOORE, Safety Director, Grumman Aircraft Eng. Corp.  
 GORDON MORRISON, Safety Director, Kellogg Co.  
 D. T. MOULD, Safety Director, General Motors Corp.  
 D. E. MUMFORD, Manager of Safety, New York Central System  
 J. HOWARD MYERS, Director, Safety & Fire Prevention, The Atlantic Refining Co.  
 NEIL NELSON, District Engineering Manager, American Mutual Liability Insurance Co.  
 J. E. NICHOLS, Safety Director, Reynolds Metals Co.  
 GEORGE F. NUERNBERGER, Safety Engineer, A. B. Dick Co.  
 JOSEPH POCHOP, Safety Director, John Morrell & Co.

Council members in the Fertilizer Industry were given Sectional status early in 1953. Representatives of this group have been developing a national executive organization and scheduling production of technical and educational material for the industry.

The SAFE BUILDER, a monthly publication for construction employees, was launched at the Construction Section's request. Special poster series have been produced for the Marine, Fertilizer, Petroleum, Railroad, and Logging industries.

## Standards and Codes

Continuing liaison with the American Standards Association has been assigned to a staff member of the Industrial Department.

Extensive interest in safety standards is evidenced by the fact that the Council is now the sponsor or co-sponsor of 16 safety standards or codes, and is represented on 65 others.

## Services

The Council's Safety Institute held six basic courses and two advanced courses at its headquarters offices. 238 students were enrolled, an increase of 71 over the previous year.

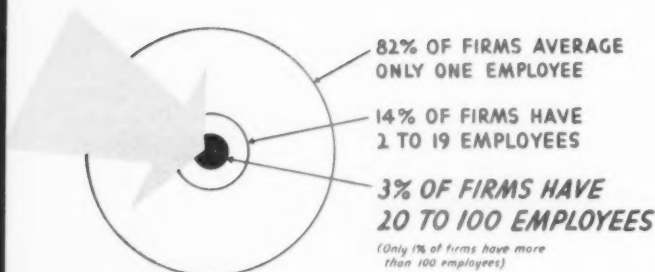
Three staff members presented the one-week course, *Fundamentals of Industrial Safety*, at Anchorage and Fairbanks, Alaska. The courses were sponsored by the Alaskan Department of Labor, and were attended by 200 men.

A staff engineer inspected transmitter stations of the Voice of America in Africa and Europe and is completing similar work in the Far East. He made safety recommendations and trained supervisors at each station. This service was undertaken for the Department of State with expenses paid by the Federal Government.

M. C. M. POLLARD, National Gypsum Co.  
 R. L. POTTER, Industrial Safety, American Airlines, Inc.  
 J. S. QUEENER, Manager, Safety & Fire Protection Div., E. I. du Pont de Nemours & Co., Inc.  
 H. F. REINHARD, Consulting Engineer, Union Carbide & Carbon Corp.  
 H. W. RICHARDSON, Editor, Construction Methods & Equipment  
 W. H. ROBERTS, Superintendent of Safety, Chicago & North Western Ry. System  
 W. T. ROGERS, Safety Consultant, Ebasco Services, Inc.  
 ROBERT T. ROSS, Manager, Employee Services, Industrial Relations, Ford Motor Co.  
 R. C. SABENS, New York, Chicago & St. Louis R. R. Co.  
 RAY SCHOENIG, Curtis Co., Inc.  
 H. S. SIMPSON, Safety Engineer, Caterpillar Tractor Co.  
 JOHN E. SMITH, Spencer Chemical Co.  
 HERSHEL L. SMITH, Safety Engineer, General Electric Co.  
 W. S. SMITH, Director of Safety, Ford Motor Co., Rouge Plant  
 DR. H. J. STACK, Director, Center for Safety Education, New York University  
 GEORGE H. STEEL, Safety Director, Ralston Purina Co.

LT. COL. R. C. STRATTON, Supervising Chemical Engineer, Travelers Insurance Co.  
 A. J. STROMQUIST, Director of Safety, Cleveland-Cliffs Iron Co.  
 J. M. TRANSUE, Security Director, Philco Corp.  
 COL. W. L. TUBBS, Assistant for Ground Safety, DCS/Personnel, Hq., U. S. Air Force  
 DONALD VAUGHAN, Manager, Engineering & Inspection Dept., Aetna Casualty & Surety Co.  
 LEA P. WARNER, JR., Personnel & Safety Manager, Warner Co.  
 J. H. WATERMAN, Manager, Ground Safety, Trans World Airlines  
 CAPT. GEORGE WAUCHOPE, Executive Vice-President, Farrell Lines  
 C. H. WEISER, Plant Personnel Services, Southwestern Bell Telephone Co.  
 W. O. WILSON, Manager of Safety, Standard Oil Co. (Ind.)  
 W. R. WILLIAMS, Administrator, Good Samaritan Hospital  
 E. C. WOODWARD, Safety Director, E. O. Smith Corp.  
 STANLEY WRIGHT, Supervisor of Safety, Inland Manufacturing Div., General Motors Corp.  
 JOHN W. YOUNG, Consultant, Industrial Safety, International Harvester Co.  
 A. H. ZEILINGER, Superintendent of Safety, The Colorado Fuel & Iron Corp.

## Small Business Program



The Small Business and Associations Committee of the Industrial Conference and the staff director of the program are finding that the best approach to reducing the high accident rate of small, independent companies, with fewer than 100 employees, is through trade associations, insurance groups, local safety councils, and state industrial commissions.

Safety in small business is one of the most talked about subjects in the entire field of accident prevention. Since July 1951, the topic has been presented at 40 national, regional and local safety conferences. It was given great emphasis at the President's Conference on Occupational Safety. In that same period of time some 60 associations have started or greatly expanded safety activities. Nearly 100 others have taken advantage of the special consultation service provided through the program.

The Council presented eleven awards for outstanding association safety activities in 1953. An average accident frequency reduction of 46% over a 5-year period certifies the effectiveness of these associations' programs. The program has shown such remarkable results that additional funds were allocated to it in July 1953. This permitted an increase in staff which will widely expand the scope of the program.

Future plans call for further development of promotional material, and continuation of the complimentary newsletter and technical publications for associations.

## New Publications

Editorial work has been completed on the Supervisor's Manual for Accident Prevention, soon to be released to Council members.

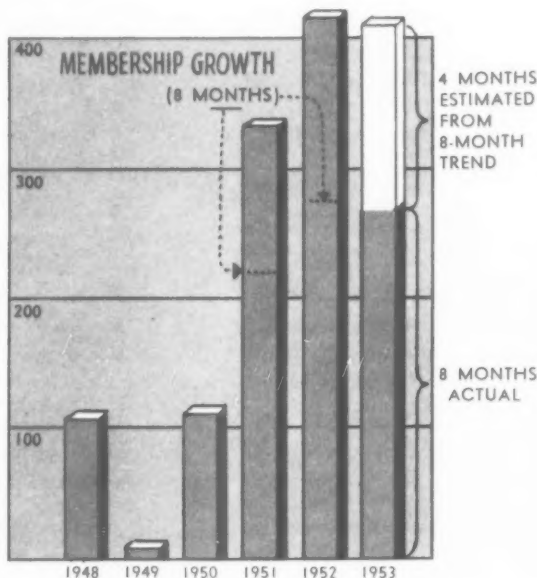
Two joint projects were completed: *Safety Manual for the Graphic Arts Industry*, produced in collaboration with the Education Council of the Graphic Arts Association, and the *Hospital Safety Manual*, in collaboration with the American Hospital Association.

Other publications of the past year include: *Handbook of Accident Prevention for Business and Industry*; *Women on Industrial Jobs*; *Showmanship for Safety*; 10 new *Data Sheets*; *Book IV, Foremen's Five-Minute Safety Talks*; 18 new *Safety Instruction Cards* and 15 revised editions; 5 new *Safety Training Films*.

Most of the work has been completed on a series of *Accident Preventers*, a new type of training leaflet covering specific operations. Three *Safetygraphs* for use in first-aid training are now being produced in collaboration with the American Medical Association.

## Growth

Net increases in occupational types of memberships have been most encouraging for the past three years.





## Motor Transportation

Members of the Traffic and Transportation Conference are listed on the next three pages.

### Driver Awards

The National Safety Council *Safe Driver Award* has become widely recognized as the nation's highest award for professional safe driving performance. Fleet operators throughout the land acknowledge the impact and influence of this award plan in helping them reduce accidents.

In spite of the great postwar increase in traffic volume, the number of award winners has tripled. The continuing effectiveness of the plan has been clearly demonstrated by the growing number of awards for longer periods of safe driving performance.

### Fleet Safety Engineering

The competition engendered by the *Marcus A. Dore Memorial Award*, recognizing outstanding work in the field of fleet safety engineering, has produced better balanced and more effective accident prevention activities.

The general improvements which have been made in driver selection, training and supervision, and in stimulating and sustaining safe driving attitude are resulting in economic and accident prevention gains for the entire motor transportation industry.

### The Contest

The *National Fleet Safety Contest* has been expanded through joint sponsorship arrangements with associations representing the fluid milk industry, the automobile transporting industry and police agencies. The experience of 1,500 fleets entered in 30 contest divisions is providing vital statistical data on high frequency accident types and causes.

The contest is also arousing a keen spirit of competition and teamwork in preventing accidents. A new program of providing personal record audits to the winning fleets offers an opportunity to raise the standards of accident reporting and accident record systems.

### Materials

In a motion picture series, *Professional Safe Driving*, the Council has launched a new attack on the problem of professional driving attitude. This five-film series is designed to harness the personal factor, long recognized as the underlying cause of many traffic accidents, by developing a "want to be safe" attitude in the minds of drivers.

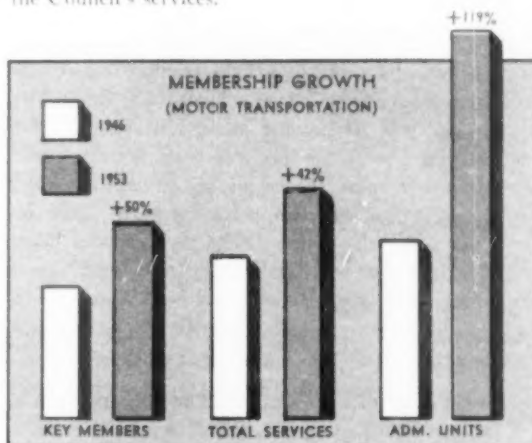
New and improved program materials—posters, dash cards, driver letters, magazines, pamphlets—created to support the doctrine of "preventability" and its reflected theme of *Defensive Driving*, are now reaching more than a quarter of a million professional drivers.

### Growth

There has been a steady increase during the postwar years in the number of fleets using the Council's accident prevention services.

The *Total Services* column in the chart below includes organizations which hold some other type of basic membership but also subscribe to the *Complete Motor Transportation Service*.

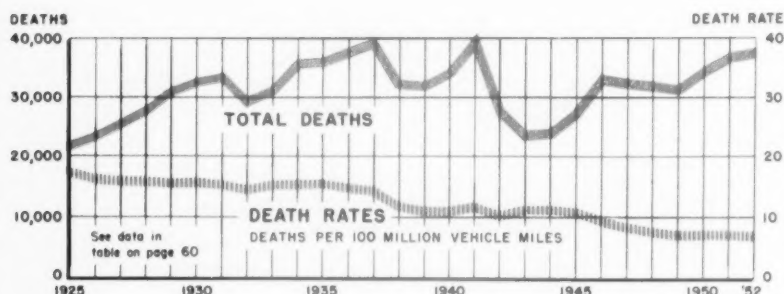
The growth of *Administrative Units* indicates a large increase in the number of terminals, branches or subsidiaries availing themselves of the Council's services.





## Traffic Safety

Traffic accidents killed 38,000 in 1952, up 2% from 1951. Increased use of motor vehicles, however, pulled the mileage death rate down to an all-time low of 7.3. Non-fatal injuries totaled 1,350,000, up slightly from the year before.



The National Safety Council, through its Traffic and Transportation Conference, Traffic Section, Police Division, Traffic Courts Division and study committees, is concerned with the entire field of traffic safety. The Annual Congress, *PUBLIC SAFETY* magazine, newsletters, other publications, and staff correspondence and consultation touch every part of the field.

A most significant development in 1952 was the adoption by the Board of Directors of a policy statement on highway traffic which recognizes the close relationship between accidents and congestion, and places the Council on record as supporting activities which both facilitate and safeguard the free flow of traffic.

Many traffic activities are the primary responsibility of governmental agencies or associations of officials. The Council's program is designed to aid and supplement these activities, with many parts carried through cooperative projects with other groups and organizations. Some are joint committee operations, in which Council officers, members and staff take a leading part. These include the National Committee for Traffic Safety, the National Committee on Uniform Traffic Laws and Ordinances, the Joint Committee on Uniform Traffic Accident Statistics, as well as special committees such as the Committee on Highway Safety Research of the National Research Council.

Other parts of the Council's traffic program are identified as specific projects, many of which touch more than one of the recognized areas of enforcement, engineering and education. These are listed and described on the two pages which follow.



Vice-President for Traffic and Transportation—F. M. KREML, Director, Northwestern University Traffic Institute; Director, Traffic Division, International Assn. of Chiefs of Police

### Traffic & Transportation Conference 1952-53

**Chairman:** HAROLD P. JACKSON, President, Bankers Indemnity Insurance Co.  
**Vice-Chairman:** ARTHUR C. BUTLER, Director, National Highway Users Conference  
**Vice-Chairman:** J. P. HIGHTOWER, Vice-President & General Manager, Greyhound Building Corp. of N.Y.  
**RICHARD O. BENNETT**, Director, Automotive Division, National Assn. of Automotive Mutual Insurance Cos.  
**FRANK L. BIAGGNE**, President, National Sheriff's Association  
**DON BLANCHARD**, Secretary, Technical Board, Society of Automotive Engineers  
**T. N. BOATE**, Manager, Accident Prevention Dept., Assn. of Casualty & Surety Cos.  
**NORMAN E. BORGERSON**, Assistant Superintendent, Michigan Dept. of Public Instruction  
**W. H. BOUTELL**, Member, Board of Directors, National Automobile Transporters Assn.  
**EARL H. BREON**, Assistant Director, First Aid Services, American National Red Cross  
**A. N. BRION**, President, Northland Greyhound Lines, Inc.  
**ROBERT D. BUGHER**, Asst. to Director, American Public Works Assn.  
**M. G. BULLOCK**, Supervising Engineer, Transit Casualty Co.  
**FRED BURGGRAB**, Director, Highway Research Board  
**CLAY D. CALKINS**, Director of Safety, Pacific Motor Trucking Co.  
**C. F. CORNISH**, Director, Aero Commission of Indiana  
**ERNEST G. COX**, Chief, Section of Safety, Bureau of Motor Carriers, Interstate Commerce Commission  
**F. BRUCE CRANDALL**, President, Institute of Traffic Engineers  
**NORMAN DAMON**, Vice-President, Automotive Safety Foundation  
**M. R. DARLINGTON, JR.**, Managing Director, Inter-Industry Highway Safety Committee  
**HARMER E. DAVIS**, Director, Institute of Transportation & Traffic Engineering, University of California  
**WILLIAM J. DAVIS**, Secy. & Mgr., National Automobile Theft Bureau  
**H. S. DEWHURST**, Secretary, Safety Section, Association of American Railroads  
**COLIN DOBEL**, Director, Transportation Safety & Training, British Columbia Electric Railway Co.  
**F. V. DU PONT**, Commissioner of Public Roads  
**JAMES P. ECONOMOS**, Director, Traffic Court Program, American Bar Assn.



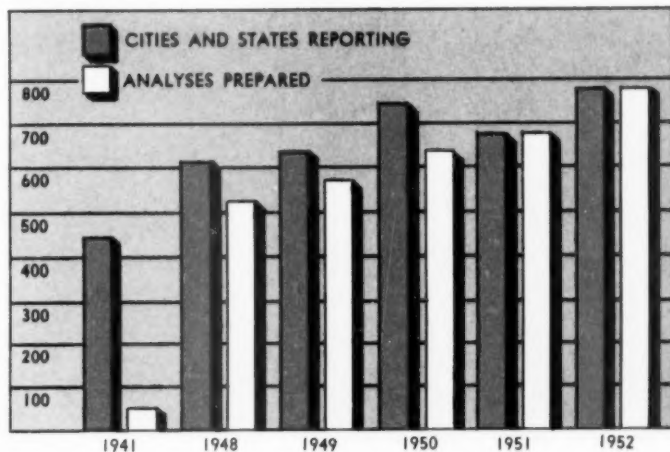
## The Inventory

OSCAR E. H. FROELICH, Transportation Manager, Ward Baking Co.  
 WILLIAM M. GREENE, Director, Connecticut State Safety Commission  
 HAROLD F. HAMMOND, Mgr., Transp. & Communication Dept., Chamber of Commerce of U. S.  
 JOSEPH E. HAVENNER, Manager, Public Safety Dept., Automobile Club of Southern California  
 MRS. J. HOWARD HODGE, Safety Chairman, General Federation of Women's Clubs  
 L. E. HOFFMAN, Superintendent of Safety, St. Louis Southwestern Railway Lines  
 DAN HOLLINGSWORTH, Manager, Oklahoma City Safety Council  
 M. R. JENSEN, Supt. of Transportation, Consolidated Freightways  
 C. M. KIMBALL, Assistant to Vice-President, Southern Railway System  
 RUDOLPH F. KING, Registrar of Motor Vehicles, Massachusetts  
 EDWARD R. KLAMM, Manager, Accident Prevention Division, Allstate Insurance Co.  
 MRS. FRED W. KNIGHT, Safety Chairman, National Congress of Parents & Teachers  
 M. A. KRAFT, Director, Dept. of Personnel & Accident Prevention, American Transit Assn.  
 F. M. KREML  
 WALTER D. LADD, Manager, St. Joseph Council  
 CYRILLE LEBLANC, President, International Assn. of Chiefs of Police  
 T. H. MACDONALD, Texas A. & M. College  
 BURTON W. MARSH, Director, Engineering & Safety Dept., American Automobile Assn.  
 THEODORE M. MATSON, Yale Bureau of Highway Traffic  
 DON McCLAUGHERTY, President, American Assn. of Motor Vehicle Administrators  
 ELTON K. McQUERY, Assistant Director, Council of State Governments  
 KENNETH R. MILLER, Executive Director, Greater Cincinnati Safety Council  
 HALLIE L. MYERS, Director, Safety & Employee Relations, Indianapolis Railways, Inc.  
 J. HOWARD MYERS, Director, Safety & Fire Prev., Atlantic Refining Co.  
 SIDNEY E. NELSON, Vice-Chairman, Accident Prevention Committee, National Assn. of Insurance Agents  
 GEORGE O'HARA, Safety Chairman, U. S. Junior Chamber of Commerce  
 GEORGE OPPER, Village Manager, Riverside, Ill.  
 HARRY M. PONTIUS, Director of Safety, Farm Bureau Automobile Insurance Co.  
 R. L. POTTER, Supervisor, Industrial Safety, American Airlines  
 GLENN C. RICHARDS, General Superintendent, Detroit Dept. of Public Works  
 KARL M. RICHARDS, Manager, Field Services Dept., Automobile Manufacturers Assn.  
 WILLIAM ROTHMAN, President, American Taxicab Assn.  
 R. C. SABENS, Superintendent of Safety, New York Central & St. Louis R. R. Co.  
 GEORGE SANBERG, International Safety Chairman, Civitan International  
 FRANK SAWYER, President, National Assn. of Taxicab Owners  
 G. D. SONTHEIMER, Director, Dept. of Safety, American Trucking Assn.  
 DR. HERBERT J. STACK, Director, Center for Safety Education, New York University  
 ARNOLD H. VEY, Director, New Jersey Bureau of Traffic Safety  
 J. H. WATERMAN, Manager, Ground Safety, Trans World Airlines  
 C. REYNOLDS WEAVER, Director, State & Local Officials National Highway Safety Committee  
 SIDNEY J. WILLIAMS, Chairman, National Committee on Uniform Traffic Laws & Ordinances  
 C. M. ZIEGLER, President, American Assn. of State Highway Officials

1953 was an outstanding year in the development of the Annual Inventory of Traffic Safety Activities, administered by the Council under policies set by the State and Local Officials National Highway Safety Committee.

Quantity and quality of reports, and use of analyses by cities and states reached a new high.

Improvement in the fact gathering, analysis and presentation procedures of the Inventory will continue. But increased emphasis now will be given to more prompt, aggressive and concerted action to put Inventory recommendations into effect in the states and cities.



## Operation Safety

With 1953, *Operation Safety* completes its sixth year of publication. During this time, new services and materials have been sent out monthly to help states and communities improve their traffic safety educational programs.

Within this six-year period, the monthly kit of materials has been increased fourfold in size, and the materials have been improved. All phases of public education and all media have been covered.

The demand for the program has more than doubled since 1948. In the first six months of 1953 subscriptions increased 18% over the corresponding period of last year. More than 2,000 *Operation Safety* kits are now being distributed each month.

## Signs of Life

This educational campaign to promote prompt recognition and conscientious observance of all traffic signs—especially those at highway-rail intersections—continues to grow in acceptance and co-operation among both officials and the public. A steady downward trend in accidents at highway-rail intersections supports this statement.

New materials, more selective application and increasing interest will continue to show the value of *Signs of Life* as a basic program of traffic safety education.

## Winter Driving Hazards

Now in its 15th year, the Committee on Winter Driving Hazards continued its research and educational program to obtain and distribute information on safe winter driving.

In the past, tests have been run on frozen lake surfaces and on snow and ice covered roads, using both passenger cars and trucks.

The current test project consists of research on the cause and prevention of jackknifing of truck-trailer combinations. It is planned to complete this project in the near future with the testing of fully loaded vehicles.



In addition to the regular test work this year, special tests were run on inertia type anti-skid devices and, at the request of the Interstate Commerce Commission, on emergency or unit type chains for trucks.

For the winter of 1952-53, a booklet, *Here Are the Facts—Basic Winter Driving Rules*, was published. It has been revised for the coming winter, and a new companion piece prepared specifically for truck drivers. A film based on the results of Committee activity over the past few years is in production.

## Accident Records

Substantial progress has been made in carrying out recommendations of the President's Highway Safety Conference on accident rec-

ords. New forms are being developed, and a new definition of "injury accident" has been given preliminary approval by a reviewing committee.

Collection of injury data for publication by the Council on a basis comparable to that of death figures has been initiated, so that trends of non-fatal cases can be studied and given proper emphasis.

Further work is underway on development of both greater quantity and better quality of reported accident information.

## Tests for Intoxication

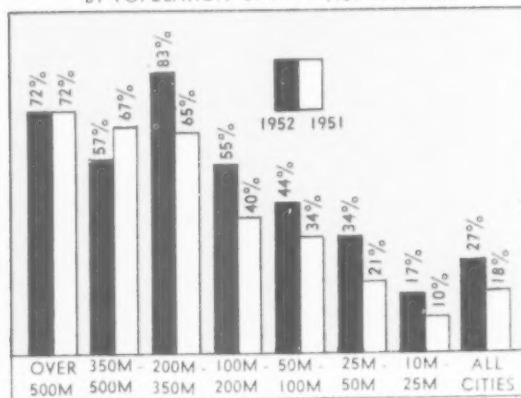
The use of chemical tests to determine the degree of intoxication in suspected drinking drivers showed another substantial increase during the past year.

The 369 cities reporting use of tests represent an increase of 52% over the past year. In addition, two states adopted specific chemical test statutes, making a total of 16 which now have such laws.

The scientific evidence offered by chemical test proved acceptable to the courts in 44 states. In the 28 states where the tests are used without specific legislation, the courts generally follow the blood alcohol standards for the interpretation of test results set forth in the Uniform Vehicle Code.

Training of laboratory technicians, police and others in this field has been expanded by the Traffic Institute of Northwestern University, under a grant of funds from the Council.

PERCENTAGE OF CITIES USING TESTS  
BY POPULATION GROUPS 1951 AND 1952





## Women's Activities

Safety education activity by organized women's groups has shown a remarkable growth in the past few years. Cooperation in promoting safety in homes, in traffic, on farms and among children has increased vastly at all levels—community, state and national.

### Service Expansion

The Council staff has been constantly corresponding and maintaining contacts with leaders of parent groups, women's committees of community and state safety councils, clubs, auxiliaries, service groups and similar women's organizations, and with women commentators and newscasters on radio and television outlets in all of the 48 states. They are provided with ideas that stimulate safety activities, and are given assistance in operating their safety programs. For example:

**AT YOUR SERVICE**, the Women's Activities bi-monthly newsletter, is being sent without charge to 4,200 women's leaders at their request.

**TARGETS FOR TRAFFIC SAFETY**, a monthly promotional piece, is mailed to 5,700 women concerned with preventing traffic accidents. A similar piece, **TARGETS FOR HOME SAFETY**, is sent to a list of 5,000.

### Carol Lane Award

Inaugurated in 1952 to give national recognition to individual women making the greatest contribution to traffic safety, the Carol Lane Award was expanded in 1953 to include women's organizations and parents' groups. A high order of quality and much effective achievement is evidenced in this year's nominations.

The 1953 winners will be announced at the Reception for Women during the 41st National Safety Congress.



*Vice-President for Women's Activities  
MISS MARION E. MARTIN  
Commissioner of Labor and Industry  
State of Maine*

The activities of the Women's Division are guided by an advisory group composed of women members of the Board of Directors and led by the Vice-President for Women's Activities.

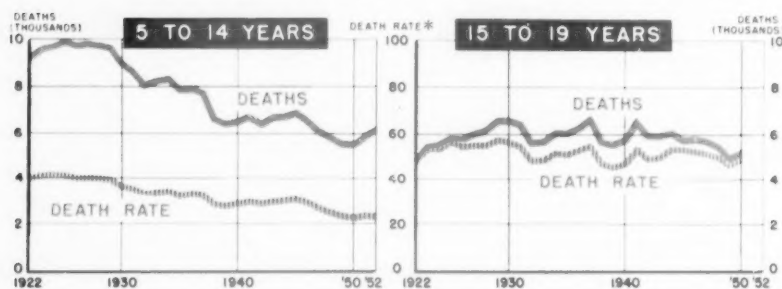


*Mrs. Feva B. Tomlinson of St. Joseph, Missouri,  
winner of the 1952 Carol Lane Award.*



## School and College Safety

The accidental death rate for children 5 to 14 continued its downward trend in 1952. Since the mid 1920's, when the national child safety program began, the death rates have been cut almost 50%. Death rates for the 15 to 19 year group have changed very little during the same period.



\* Deaths per 100,000 population in each age group

### Accident Reporting

Progress has been made in uniform reporting of school jurisdiction accidents. School systems cooperating represent an enrollment of 1,751,000—more than double the number represented five years ago.

### Safety Education Supervision

Supervision of safety education in schools is moving forward both in quantity and quality. The Council's Safety Education Supervisors Section has grown from 12 members in 1944, to 432 in 1953. A newly developed statement of the duties of a supervisor has had widespread distribution and acceptance within recent months.

### Teacher Preparation

Progress has been made in the preparation of teachers in safety education but more is needed. This year's Council survey showed that one teacher preparing institution in four gave at least one course on some phase of safety education. A total of 248 colleges offered 565 courses. In 1938 only 53 institutions offered such courses.

### Driver Education

Since October 1952, seven new state associations of teachers of driver education have affiliated with the Driver Education Section. The Driver Education Section, in cooperation with other organizations, has aided in the furthering of teen-age traffic safety conferences through which the youth of the nation are attempting to aid in the solution of the traffic accident problem.



Vice-President for Schools and Colleges:  
DR. HEROLD C. HUNT, Charles William Eliot Professor of Education, Harvard University

### SCHOOL & COLLEGE CONFERENCE 1952-1953

- Chairman: DR. HERBERT J. STACK, Director, Center for Safety Education, New York University
- Vice-Chairman for Elementary Education: MRS. LILLIAN GILLILAND, Oklahoma City Public Schools
- Vice-Chairman for Secondary Education: C. BENTON MANLEY, Director of Safety Education, Springfield, Mo.
- Vice-Chairman for Higher Education: JOHN W. HILL, Director, Workmens Compensation Insurance, Texas A & M College System
- Vice-Chairman for Special Areas: DR. ZENAS R. CLARK, Administrative Assistant, Wilmington Public Schools
- FRANK C. ABBOTT, American Council on Education
- DR. ARTHUR S. ADAMS, President, American Council on Education
- JOHN J. AHERN, Director, Department of Safety Engineering, Illinois Institute of Technology
- DR. W. W. BAUER, Director, Bureau of Health Education, American Medical Association
- NORMAN E. BORGERSON, Deputy Superintendent, State Department of Public Instruction
- EARL H. BREON, Assistant Director of First Aid, American National Red Cross
- DR. CLIFFORD LEE BROWNELL, President, American Association for Health, Physical Education and Recreation, Teachers College
- PERCY BUGBEE, General Manager, National Fire Protection Association
- PRICE E. CLARK, Educational Director, Accident Prevention Department, Association of Casualty and Surety Companies
- DR. JOHN E. CORBALLY, Professor of Secondary Education, University of Washington
- DR. WALTER A. CUTTER, Administrative Assistant, Center for Safety Education, New York University
- M. R. DARLINGTON, JR., Managing Director, Inter-Industry Highway Safety Committee
- H. S. DEWHURST, Secretary, Safety Section, Association of American Railroads
- FRANK W. DOUMA, Superintendent of Schools, Ottumwa, Iowa
- DR. RAY O. DUNCAN, Dean, School of Physical Education and Athletics, West Virginia University
- ROY FAIRBROTHER, Supervisor, Distributive Education, Wisconsin State Board of Vocational and Adult Education



DR. LOWELL B. FISHER, University of Illinois  
 DR. URBAN FLEECE, National Catholic Education Association  
 FORREST GAINES, Supervisor of Safety Education, State Department of Education, Louisiana  
 DON GAVIT, Business Manager, Hammond, Indiana  
 GORDON C. GRAHAM, Supervisor, Safety Education Department, Detroit, Michigan  
 JAMES J. GRIFFIN, Coordinator of Safety, Board of Education, Chicago  
 MISS MARY S. HANDLIN, Arlington Heights, Illinois  
 DR. FRED V. HEIN, American Medical Association  
 THOMAS J. HIGGINS, Director, Division of School Building Survey, Board of Education, Chicago  
 CLAUDE W. HIPPLER, Director of Child Welfare and Safety, Pasadena, California  
 RIGHT REV. MSG. F. G. HOCHWALT, National Catholic Education Association  
 DR. DEWITT HUNT, Head, Department of Industrial Arts, Education and Engineering Shopwork, Oklahoma A & M College  
 DR. HAROLD K. JACK, Supervisor, Health and Physical Education, Safety and Recreation, Virginia State Board of Education  
 HARRY R. JACKSON, Director, Industrial Arts Department, Winona State Teachers College  
 STEPHEN JAMES, Director, Education Division, Automotive Safety Foundation  
 GEORGE JENNINGS, Director, Radio Council of Chicago  
 MRS. HELEN K. KNADEL, Education Consultant, American Automobile Association  
 MRS. FRED W. KNIGHT, Chairman, Safety Committee, National Congress of Parents and Teachers  
 HAROLD F. LILLIE, Manager, Lansing Safety Council  
 DR. FORREST E. LONG, New York, New York  
 JAMES W. MANN, Principal, Hubbard Woods School, Winnetka, Illinois  
 CHARLES A. MILLER, Division Manager, The Texas Company  
 DR. M. D. MOBLEY, Executive Secretary, American Vocational Association  
 DR. M. R. OWENS, Arkansas State Department of Education  
 H. V. PORTER, Executive Secretary, National Federation of State High School Athletic Associations  
 MRS. GLADYS POTTER, Deputy Superintendent in Charge of Elementary Education, Long Beach, California  
 DR. EDWARD PRESS, American Academy of Pediatrics  
 A. H. PRITZLAFF, Director of Physical Education, Board of Education, Chicago  
 MISS THELMA REED, Principal, William Volker School, Kansas City, Missouri  
 DR. EDWARD A. RICHARDS, Assistant National Director, Junior Red Cross and Education Relations, American National Red Cross  
 C. A. SEMLER, Principal, High School, Benton Harbor, Michigan  
 LESLIE SILVERNALE, Coordinator, Driver Education, Michigan State College  
 CLIFTON B. SMITH, President, National School Boards Association  
 DR. RAY STOMBAUGH, Director, Department of Industrial Arts Education, Illinois State Normal University  
 RANDALL C. SWANSON, State Farm Safety Specialist, University of Wisconsin  
 GEORGE G. TRAYER, Manager, Public Relations, National Board of Fire Underwriters  
 EDWARD M. TUTTLE, Executive Secretary, National School Boards Association  
 DR. N. E. VILES, Specialists for School Plant Management, U.S. Office of Education  
 DR. GILBERT S. WILLEY, Superintendent, Winnetka Public Schools  
 DR. WALTER R. WILLIAMS, JR., Head, Industrial Arts and Vocational Education, University of Florida  
 MRS. NORMA F. WULF, Board of Education, Cleveland, Ohio

## Honor Roll

The National School Safety Honor Roll is now open to all elementary and secondary schools—public, parochial, and private,—and teacher educating colleges. Within the past year 295 certificates were granted.

## National Safety Congress

The attendance at the School and College Safety meetings has increased vastly in the past few years. Forty-five states plus the District of Columbia, Chili, Saskatchewan, Germany and Venezuela were represented at the 40th Congress. Over 100 prominent educators were speakers and discussion leaders in 25 sessions, and 42 committee meetings were held.



*Educators gather at the National Safety Congress from every corner of the nation for work sessions such as the one shown above.*

## Consultation Service

During the 1952-53 school year, 18,700 requests for safety education information were answered. Staff members spent 153 working days in 34 cities of 22 states, assisting in the planning of local, state and national safety education programs.

## Publications

Subscribers to SAFETY EDUCATION magazine are now entitled to membership privileges in the National Safety Council. A total of 7,575 subscriptions are now in effect.

During the 1952-53 academic year the nation's schools used more than 300,000 safety posters and 750,000 Lesson Units.



## Home Safety

The home accident death rate continued its general downward trend in 1952, dropping 2%. Death rate reductions have been made in 11 of the past 15 years.

Fatal home accidents occurred most frequently among older people and among the very young. Of the 29,000 persons killed in 1952, 56% were 65 or more years of age. Of the victims under 65 years of age, nearly one-half were less than 5 years old.

The chart on the facing page illustrates the progress that has been made in reducing home accident death rates since 1931.

### New Surveys

Late in 1952 the U. S. Public Health Service made available its findings on the frequency of accidental injuries among people living in the Eastern Health District of Baltimore. The outstanding fact presented was the frequency was lower for home premises than other locations if time spent at home was considered. Injuries per million person-hours were: home 5, public places 16, work places 13.

The School of Public Health, University of Michigan, has published the results of its survey of home injuries in Washtenaw County, Mich. A special feature was the investigation of environmental conditions of homes with accidents and homes without accidents, to determine which of specified conditions were associated with injuries.

### New Activities

A three-day institute on home accident prevention was held under the auspices of the School of Public Health, University of Michigan. Some ninety delegates from all over the country evaluated current information, methods of securing information, and procedures in applying preventive measures. The wealth of material presented and activities reported were evidence of extensive interest and concern in this field among public health personnel. Council staff took an important part in planning and conducting this first-of-its-kind conference.



Vice President for Homes  
W. A. STEWART, President, American Optical Company

### HOME SAFETY CONFERENCE 1952-1953

- Chairman: GEORGE M. WHEATLEY, M.D., Third Vice President, Health and Welfare, Metropolitan Life Insurance Company
- Vice-Chairman, Division of Community Service Groups: E. M. GEARHART, JR., Director, Secretary, National Safety Council
- Vice-Chairman, Housing and Equipment Division: LEONARD HAEDER, Director, Technical Service and Research Dept., National Association of Home Builders
- Vice-Chairman, Health and Medical Division: EDWARD PRESS, M.D., Associate Director, University of Illinois Services for Crippled Children
- MISS LURA JIM ALKIRE, Manager, Consumers Institute, General Electric Co.
- DONALD B. ARMSTRONG, M.D., Second Vice President, Health and Welfare, Metropolitan Life Insurance Co.
- DALE K. AUCK, Fire Prevention Engineer, Federation of Mutual Fire Insurance Companies
- W. W. BAUER, M.D., Director, Bureau of Health Education, American Medical Association
- W. W. BULTON, M.D., Associate Director, Bureau of Health Education, American Medical Association
- MISS RUTH A. BOTTOMLY, Director of Office, National Congress of Parents and Teachers
- A. CARL BREDAHE, Westinghouse Electric Corp.
- ALFRED M. CANTWELL, National Director Safety Services, American National Red Cross
- THEODORE F. COGE, Technical Secretary, American Institute of Architects
- MISS ELSIE L. ELLIOTT, Vice President for Home Safety, Greater Los Angeles Chapter, National Safety Council
- WALTER CUTLER, Ph.D., Assistant Director, Division of General Education, Center for Safety Education, New York University
- MISS FLORENCE FALLEGATTER, Home Fraternity Education Department, Iowa State College
- MISS RUTH FISHER, Director, Department of Public Health Nursing, National League for Nursing, Inc.
- MISS KAREN FLADDIS, Director, Consumer Service, Nash-Kelvinator Corp.

MRS. THOMAS J. FORD, National Liaison Representative, Community Relations Division, Girl Scouts of the U.S.A.

DONALD HARTING, M.D., Regional Medical Director, Children's Bureau

IRMA GENE N. HOLLOWAY, Ed. D., Educational Consultant, Greater Cincinnati Safety Council

FREDERICK S. KENT, Chief, Home Accident Prevention Unit, Division of Sanitation, Public Health Service, Department of Health, Education and Welfare

MRS. FRED KNIGHT, Chairman, Committee on Safety, National Congress of Parents and Teachers

FRED LONG, M.D., M.P.H., Commissioner, Peoria, Illinois, Department of Health

R. D. MACDANIEL, Vice-President, Grain Dealers National Mutual Fire Insurance Company

DONALD E. MUMFORD, Superintendent of Safety, New York Central System

MISS IRENE L. MUNTZ, Home Service Director, Rochester Gas and Electric Company

MISS MADELINE PERSHING, Nurse Officer, Home Accident Prevention Unit, Division of Sanitation, Public Health Service, Department of Health, Education, and Welfare

MISS EDITH RAMSEY, Home Equipment Editor, *The American Home*

TYLER S. ROGERS, Technical Consultant, Owens-Corning Fiberglas Corp.

C. GEORGE SEGELER, Engineer of Utilization, American Gas Association

MISS JAYNE SHOVER, Associate Director, National Society for Crippled Children and Adults, Inc.

JOHN T. SMILEY, M.D., Chief, Local Health Administration, Minnesota Department of Health

MISS RUTH TUCKEY, Director of Nurses, Community Nursing Service of Oak Park and River Forest

MAX E. TYLER, Managing Director, Safety Department, Safety Committee, U. S. Junior Chamber of Commerce

MISS MARY M. WEEKS, Health and Safety Advisor, Girl Scouts of the U.S.A.

MRS. GEORGE WELLES, JR., St. Louis County, Minnesota, Safety Council

MISS AVIS WOOLRICH, Housing Specialist, Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture

MRS. NORMA F. WULFF, Vice-President for Home Safety and Women's Activities, Greater Cleveland Safety Council

An educational exhibit on child safety was presented at the annual meeting of the American Medical Association, attended by 25,000 members of the medical profession.

## Standards

The American Standards Association has officially established a project aimed at certain standards for child safety. The project, known as Z66, and originally sponsored by the American Academy of Pediatrics, is now investigating standards in nonflammable clothing for children and the development of labeling of paint products intended for use in the home. The National Safety Council is represented on this project.

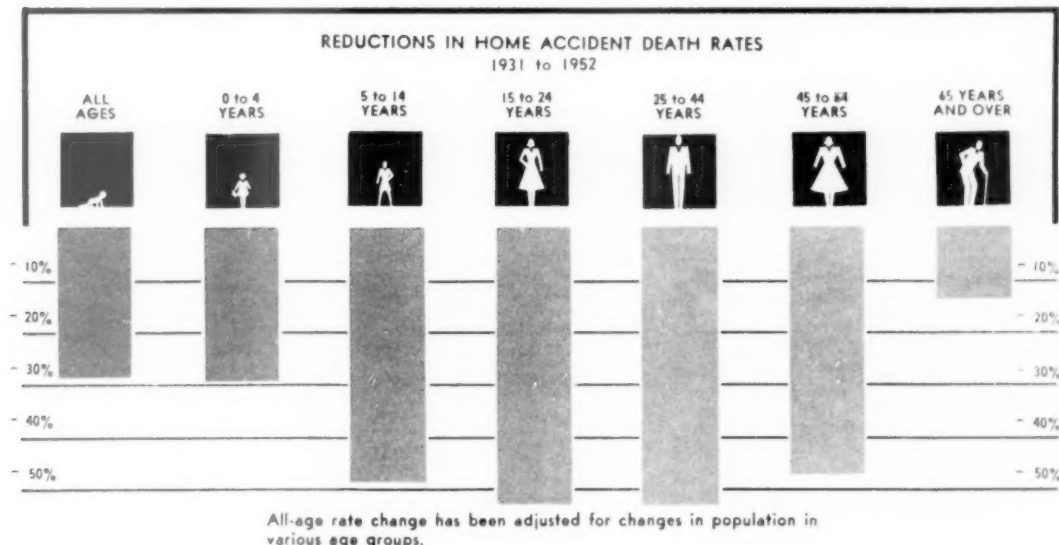
The National Association of Home Builders has appointed a standards committee to work out design standards and specifications for "building out" home hazards and "building in" home safety. Basic data is being furnished by the Council.

## Awards

Merit Awards for exceptional public service in home accident prevention were given to 21 groups in 1953, and Certificates of Commendation for meritorious activity in home safety education were awarded to 11 groups.

## Publications

The home and traffic booklet, *Your 10,000 Mile Living Room*, published last year by the Home Division, has been circulated widely. An entirely new version of the perennial favorite, *Safe At Home*, has just been released.





## Farm Safety

### National Organization

The National Conference for Farm Safety held three meetings during the past year to consider technical problems of farm safety, better ways and means of promotion and education, the need for additional materials, detailed plans for National Farm Safety Week, an expanded youth program, adoption of a color code, plans for more suitable awards and recognition, financial problems, and the Farm Safety Sessions of the National Safety Congress.

### State Organization

State Farm Safety Committees are proving their worth. The farm accident situation has greatly improved in those states where committees have conducted sound programs.

These thirty states now have State Farm Safety Committees: Alabama, Arkansas, California, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, Wisconsin and Wyoming.

State committees are made up of representatives of the major agricultural organizations and agencies, commercial organizations, agricultural colleges, extension services, vocational agriculture, radio, press, outstanding farmers and others.

A number of new State Farm Safety Committees are being organized through the efforts of the National Conference for Farm Safety and the Farm Division staff.



Vice-President for Farms:

G. L. NOBLE, Director, National Committee on Boys & Girls Club Work

C. N. HINKLE, Agricultural Engineer, Sales Technical Service Department, Standard Oil Co. (Ind.)

MISS ELEANOR HOWE, Editor, What's New in Home Economics

MISS AMY KELLY, State Extension Agent, University of Missouri

MRS. DORSEY KIRK, The National Grange

JOHN E. KIRK, Executive Secretary, The National Flying Farmers' Assn.

EDWARD R. KLAMM, Manager, Accident Prevention Division, Allstate Insurance Co.

ALLAN KLINE, President, American Farm Bureau Federation

E. W. LEHMANN, Head of Department, Agricultural Engineering, University of Illinois

WALTER LLOYD, Director, Dairy Farm Service, Kraft Foods

S. P. LYLE, Assistant to Chief, Division of Agricultural Programs, U. S. Department of Agriculture

E. C. MARTIN, State Agricultural Leader, Texas A. & M. College

EARL MERRILL, Director, Agricultural Extension Bureau, Republic Steel Corp.

FLOYD MORRIS, Buffalo, Ill.

PAUL MULLIKEN, Executive Director, National Retail Farm Equipment Assn.

HERSCHEL NEWSOM, Master, The National Grange

G. L. NOBLE

HARRISON NOLT, Chairman, Pennsylvania Rural Safety Committee

V. S. PETERSON, Nitrogen Products Sales, E. I. du Pont de Nemours & Co., Inc.

HARRY PONTIOUS, Director of Safety, Farm Bureau Mutual Automobile Insurance Companies

MARTIN RONNING, Chief Engineer, Power Machinery Division, Minneapolis-Moline Co.

CHARLES SCRANTON, Chief Engineer, Harvester Division, Allis-Chalmers Mfg. Co.

CHARLES SHUMAN, President, Illinois Agricultural Assn.

W. T. SPANTON, Chief, Agricultural Education Branch, Federal Security Admin., U. S. Office of Education

W. E. STUCKEY, State Manager, Ohio Rural Electric Cooperatives, Inc.

DAWSON C. WOMELDORFF, Manager, Agricultural Sales, Public Service Co. of Northern Illinois

CHARLES WORCESTER, Farm Service Director, Radio Station WMT

#### FARM CONFERENCE 1952-53

Chairman: HARRY L. POWELL, Manager, Manufacturers' Sales, Good-year Tire & Rubber Co.

Vice-Chairman: RANDALL C. SWANSON, Farm Safety Specialist, University of Wisconsin

Secretary: MAYNARD H. COE, Director, Farm Division, National Safety Council

LEE ADKINS, Staff Associate, Rural Division, Automotive Safety Foundation

MRS. ALMER ARMSTRONG, Home Department, Indiana Farm Bureau Cooperative Assn.

HAROLD BEATY, Manager, Rural Services, Edison Electric Institute

THEO. BROWN, Deere & Company

MAYNARD H. COE, Director, Farm Division, National Safety Council

JOHN DANEKE, Department of Public Relations, General Motors Corp.

T. A. ERICKSON, Consultant, Rural Services, General Mills, Inc.

KIRK FOX, Editor, Successful Farming

RAYMOND GILKESON, Editor, Kansas Farmer

HOWARD GRAMLICH, Director, Agricultural & Forestry Development, Chicago & Northwestern Rwy. Co.

RUSSELL HESTON, Assistant Secretary, National Association of Mutual Insurance Companies



## National Institute for Farm Safety

The Council again sponsored the Institute for Farm Safety Specialists held this year at University Farm, St. Paul, Minnesota. Specialists from Arkansas, Indiana, Iowa, Kansas, Michigan, Minnesota, Ohio, Pennsylvania and Wisconsin were enrolled, as well as a number of guest participants. The program included new developments in farm safety and detailed reports of projects being promoted by the Specialists.

## National Farm Safety Week

The 10th annual National Farm Safety Week, jointly sponsored by the National Safety Council and the United States Department of Agriculture, was observed July 19-25. Farm residents were encouraged to "Farm to Live and Live to Farm" by practicing safety at work, in the home, in traffic and at play.

In 1944 only a few organizations cooperated in this project. This year the program was supported by a majority of all organizations directly interested in farm life and welfare. Virtually all of the agricultural publications participated. More than 780 newspapers requested publicity material and about 650 asked for advertising material. The Council was notified of 6,000 broadcasts supporting the program by 940 radio stations. Many other broadcasts were made but not formally reported.

## New Materials

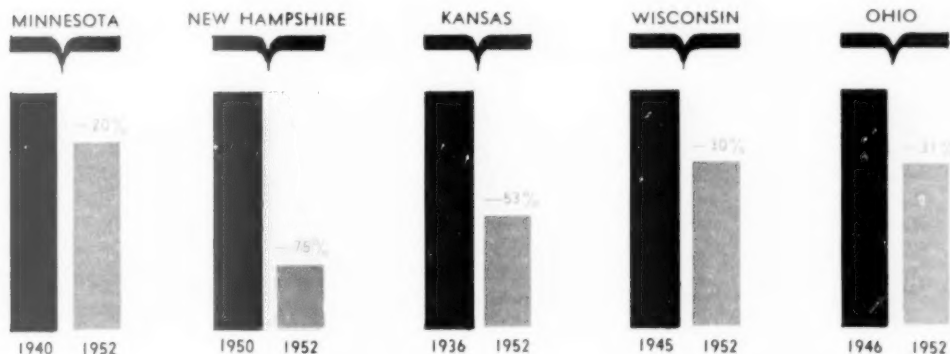
Seven new Safe Farm Practices leaflets were published under the following titles: *Rural Women's Role in Safety*; *First Aid*; *Tractor Facts*; *Safety Cans (Petroleum)*; *Animal Diseases and the Farmer*; *Family Relationships and Agriculture*; and *Safe Livestock Handling*. The statistical leaflet, *Face the Facts*, was revised.

The film strip, *Are You Inviting Corn Picker Accidents?* first issued last year, was completely revised. More than 1300 prints of this film have been circulated.

The monthly issues of FARM SAFETY REVIEW are now received by 10,000 state extension workers, 4,000 agricultural engineers and some 15,000 other leaders in agriculture. Much of this circulation is sponsored by business concerns and other interested organizations.

## Tangible Results

The charts below show how fatal farm accidents are being reduced in five states having Farm Safety Committees, State Farm Safety Specialists, sound programs and good accident reporting systems. As more states become better organized widespread reductions in farm accident fatalities will surely result.





## **Community and State Organization**

The application of sound accident prevention measures in cities and states has continued to be a major Council objective. Primary responsibility for creating, upgrading and servicing local safety organizations lies with the Field Organization Department. By working closely with the other departments and divisions of the Council, it is helping to apply the complete resources of the National Safety Council in the states and communities of the nation.

### **Chapters**

A Class "A" Chapter of the National Safety Council is defined as follows:

"An association of business and industrial interests, public officials, and responsible community leaders representative of civic and other principal groups, organized to marshal all possible resources for the prevention of accidents in all fields of human activity. It is administered by a competent, salaried staff."

During the past five years there has been an increase of 43% in the number of chapters chartered by the National Safety Council. There are now 85 chapters located in 36 states and in two provinces of Canada. All of the 10 state organizations and 62 of the community organizations are chartered as Class "A" Chapters.

### **Other Safety Organizations**

There are some 200 local safety organizations in the United States which are not chapters of the National Safety Council. Most of the 200 are entirely volunteer organizations but a few employ full-time or part-time salaried staffs. At the present time 119 of these organizations are receiving the Council's membership services.

### **Field Service**

The work of the past year by Field Organization representatives from the Chicago headquarters office and from regional offices in New York and San Francisco included:

Promotion of new National Safety Council chapters in 26 cities and five states.

Servicing and upgrading existing safety organizations in 48 cities and four states.



Vice-President for Local Safety Organizations  
**ROBERT R. SNODGRASS,**  
President, Atlas Auto Finance Co.

Presentation in chapter cities of the comprehensive analyses developed by the Annual Inventory of Traffic Safety Activities, and discussion of the recommended traffic control improvements with officials and civic leaders in chapter cities.

### **The Conference**

Relationships between the National Safety Council and its chapters and affiliated local councils are governed by policies developed by the Conference of Local Safety Organizations, which is composed of the managers and presidents of the Class "A" Chapters. While completely autonomous, a chapter must meet the national standards formulated by the Conference.

Major Conference developments during the year included:

The first National Institute for Safety Council Administration was held in Chicago during March, 1953. The Institute will be held annually for the training of chapter managers.

The Conference unanimously approved a resolution that a Chapter's responsibilities include expanded activities in traffic and transportation, especially cooperative action with public authorities and other groups for relief of traffic congestion, adequate parking facilities, long-range planning, and sound enforcement by police and courts, including vigorous public information programs to promote these objectives.

# National Safety Council Chapters

## CLASS A CHAPTERS

Atlanta Traffic and Safety Council  
 Fred B. Moore, President  
 Robert B. Leopold, Managing Director  
 Baltimore Safety Council  
 George Elste, President  
 John P. Rostmeyer, Exec. Secy.  
 Blackstone Valley Safety Council (Pawtucket, R. I.)  
 Harold Stanzler, President  
 John J. Booth, Manager  
 Caddo Bossier Safety Council (Shreveport)  
 R. J. Thoman, Sr., President  
 Col. Charles E. Doerler, Managing Dir.  
 Chattanooga Safety Council  
 Charles B. Shelton, Jr., President  
 Mrs. Lapsley W. Hope, Exec. Secy.  
 Citizens Safety Council of Hillsborough County (Fla.)  
 Carl Brorein, Jr., President  
 Carl H. Roch, Exec. Secy.  
 Concord Safety Council (N.H.)  
 Raymond C. Ellison, Chairman  
 George P. Dawson, Exec. Secy.  
 Denver Chapter  
 Robert G. Stovall, Jr., President  
 Des Moines Safety Council  
 Orville Lowe, President  
 Robert J. Hassett, Manager  
 Duluth Chamber of Commerce Safety Bureau  
 J. D. Harrold, Director-Chairman  
 George A. Nothheffer, Safety Director  
 Eastbay Chapter (Oakland, Calif.)  
 Paul Reagor, President  
 Clinton W. Dreyer, Managing Director  
 Fort Worth Safety Council  
 Albert J. Meek, President  
 Dr. W. J. Danforth, Manager  
 Greater Chicago Safety Council  
 John J. Ahern, President  
 Joseph F. Stech, Manager  
 Greater Cincinnati Safety Council  
 Fred R. Rauch, President  
 Kenneth R. Miller, Executive Director  
 Greater Cleveland Safety Council  
 Harold Gorman, President  
 Carl L. Smith, Exec. Vice-President  
 Greater Grand Rapids Safety Council  
 Herman Ter Meer, President  
 E. Ross Farra, Manager  
 Greater Los Angeles Chapter  
 L. W. Van Aken, President  
 Joseph M. Kaplan, Secy.-Manager  
 Greater New York Safety Council  
 Reginald M. Cleveland, President  
 Paul F. Stricker, Exec. Vice-President  
 Greenwich Safety Council (Conn.)  
 Jack Cluett, President  
 Sherburne Prescott, Exec. Director  
 Hamilton Safety Council (Ohio)  
 Cecil M. Dunn, President  
 W. Russell Hicks, Director  
 Indianapolis Safety Council  
 Robert W. Emerick, President  
 Jack E. Gunnell, Director  
 Jacksonville Safety Council (Fla.)  
 Harry A. Pierce, President  
 Mrs. Lennie L. Humphries, Exec. Secy.  
 Kalamazoo Safety Council  
 A. E. Kiegmunn, President  
 E. M. Gearhart, Jr., Director  
 Kansas City Safety Council  
 C. G. Roush, President  
 George M. Burns, Managing Director  
 Lansing Safety Council  
 George J. Bleibtry, President  
 Harold F. Lillie, Director  
 Lehigh Valley Safety Council (Bethlehem, Pa.)  
 Harry N. Crowder, President  
 Louisville Safety Council  
 J. B. Hendrick, Jr., President  
 Capt. Estel Hack, Exec. Vice-President  
 Maricopa County Chapter (Phoenix, Ariz.)  
 J. W. Parker, President  
 Marion Trowbridge, Manager  
 Metropolitan New Orleans Safety Council  
 E. M. Rowley, President  
 R. G. Brown, Jr., Acting Manager  
 Middletown Safety Council (Ohio)  
 Don C. Osborne, President  
 Paul E. Wilson, Director

Milwaukee Safety Commission  
 A. S. Fredrickson, Chairman  
 Dr. B. L. Corbett, Exec. Director  
 New Haven Safety Council  
 E. Stanley Taylor, President  
 Julien H. Harvey, Exec. Director  
 Oklahoma City Safety Council  
 William Gill, Jr., President  
 Dan Hollingsworth, Manager  
 Omaha Safety Council  
 Glenn L. Cavanaugh, President  
 Harry Hatcher, Manager  
 Pasadena District Chapter  
 T. Wm. Heidner, President  
 Lester G. Bock, Managing Director  
 Philadelphia Safety Council  
 J. Howard Myers, Chairman  
 Walter W. Matthews, Managing Dir.  
 Portland Traffic Safety Commission (Ore.)  
 John L. Carpenter, Chairman  
 William J. Weller, Director  
 Racine County Safety Council (Wisc.)  
 Louis S. Ritter, President  
 Robert M. Sorensen, Exec. Secy.  
 Richmond Safety Council (Va.)  
 Victor B. Fitzpatrick, President  
 James T. Wadkins, Managing Director  
 Rochester Safety Council (N.Y.)  
 Miss Irene L. Muntz, President  
 William H. Keeler, Director  
 Sacramento Safety Council  
 Charles L. Pratt, President  
 Frank Enos, Manager  
 Safety Council, Chamber of Commerce of H. Wayne (Ind.)  
 George Hacker, Chairman  
 Ivan A. Martin, Manager  
 Safety Council, Dayton Chamber of Commerce  
 Dr. J. J. Burbage, Chairman  
 Marvin Park, Manager  
 Safety Council Div., Automobile Club of R. I.  
 E. S. Harding, Chairman  
 H. Ben Garvin, Manager  
 Safety Council of Greater St. Louis  
 B. H. Sweeney, President  
 Reyburn Hoffmann, Manager  
 Safety Council of Greater Youngstown  
 C. A. Baughman, President  
 Charles A. Vimmerstedt, Manager  
 Safety Council of Western Massachusetts  
 Edward Shaw, President  
 James K. Williams, Manager  
 Safety Division, Syracuse Chamber of Commerce  
 Burnett E. Haylor, Chairman  
 Newell C. Townsend, Manager  
 St. Joseph Safety Council (Mo.)  
 Gilbert Burnham, President  
 Walter D. Ladd, Manager  
 San Francisco Chapter  
 Arnold E. Archibald, President  
 Iver C. Larson, Exec. Vice-President  
 San Joaquin County Safety Council (Calif.)  
 Dr. Kenneth H. MacPherson, President  
 Mrs. Lovilla Lator, Exec. Secy.  
 Santa Clara County Chapter (Calif.)  
 Mel R. Duffey, President  
 Albert H. Wood, Managing Director  
 Seattle-King County Safety Council  
 E. C. Walling, President  
 Paul W. Seibert, Managing Director  
 Sioux Falls Safety Council  
 Walter Conway, President  
 Henry S. Feay, Jr., Exec. Secy.  
 Spokane Area Safety Council  
 A. J. Sartori, President  
 Dave Kaye, Managing Director  
 Twin Cities Area Safety Council (St. Joseph, Mich.)  
 John De Vries, President  
 Gerald W. Shipman, Director  
 Vancouver Traffic and Safety Council  
 W. N. Wallace, President  
 James Plaskett, Exec. Secy.  
 Western Pennsylvania Safety Council  
 J. E. Goble, President  
 Harry H. Brainerd, Exec. Mgr.  
 Worcester County Safety Council (Mass.)  
 Howard W. Hindes, President  
 John W. Greene, Manager

## State Chapters

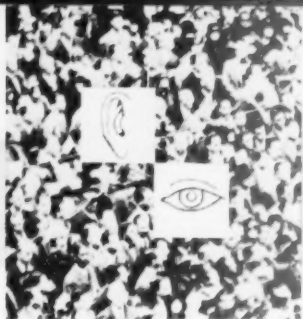
Alberta Safety Council  
 Howard B. MacDonald, President  
 Howard Stutchbury, Managing Director  
 Connecticut Safety Commission  
 Robert I. Catlin, Chairman  
 William M. Greene, Director  
 Delaware Safety Council  
 Reynolds duPont, President  
 J. James Ashton, Manager  
 Idaho Chapter, National Safety Council  
 Irving Lystad, Pres.  
 Robert A. Hankey, Manager  
 Louisiana Safety Association  
 M. J. Lesseigne, President  
 Charles E. Doerler, Secretary  
 Minnesota Safety Council  
 A. V. Rohweder, President  
 Alfred Luecke, Manager  
 New Jersey State Safety Council  
 Richard P. Mulligan, President  
 Fred L. Barrows, Exec. Vice-Pres.  
 Ohio State Safety Council  
 Henri Marc, President  
 H. G. J. Hays, General Manager  
 Utah Safety Council  
 J. Will Robinson, President  
 G. Ernest Bourne, Exec. Secy.  
 West Virginia Safety Council, Inc.  
 J. A. Mooney, Chairman  
 Charles Hopkins, Managing Director

## CLASS B CHAPTERS

Bismarck Safety Council (N. D.)  
 R. Fay Brown, President  
 J. N. Stocker, Exec. Secy.  
 Bridgeport Safety Council (Conn.)  
 George L. Trelease, President  
 Harmon E. Snook, Secretary  
 Broome County Safety Council (Johnson City, N. Y.)  
 Robert H. Austin, Chairman of Trustees  
 Lewis E. Sweet, Secretary  
 Greater Endicott Safety Council (N. Y.)  
 Russell Whitman, President  
 Ruth Butler, Secretary  
 Safety Council Div., South Bend Assn. of Commerce (Ind.)  
 E. O. Prange, Chairman  
 Eli D. Miller, Manager  
 Saginaw Safety Council (Mich.)  
 James N. Alcock, President  
 R. J. Harvey, Exec. Secy.  
 Sioux City Safety Council  
 Gaylord Smith, President  
 Elmer S. Swenson, Secretary  
 Toledo Safety Council  
 Edward L. Bowsher, President  
 Jay E. Thompson, Secretary  
 Utica Safety Council, Chamber of Commerce  
 Robert F. Gilmour, Chairman  
 Vincent R. Corrou, Exec. Secy.

## CLASS C CHAPTERS

Erie Safety Council (Pa.)  
 Harry A. Weber, President  
 John Bowman, Exec. Secy.  
 Evanston Safety Council (Ill.)  
 Elmer F. Way, President  
 Mrs. J. W. Cook, Jr., Secretary  
 Railway Safety Council (N. J.)  
 H. A. Klenner, President  
 Superior and Douglas County Safety Council (Wisc.)  
 Sig N. Lee, President  
 Miss Elizabeth M. Billmeyer, Secy.



## Public Information

The past year has brought the greatest acceptance of safety by public information media since the National Safety Council was founded 40 years ago. More than acceptance, it is in reality a partnership and even leadership in preventing accidents.

This is demonstrated not only in the amount of space and time devoted to safety, but in the increasing number of media executives who personally devote their time, talents, and energies to safety activities.

Here are a few examples, among many which might be cited:

The *Denver Post* used 351 news stories, 20 features, 81 editorials, 156 cartoons and 218 photos on safety in the one year.

Radio Station WJR in Detroit contributed time on the air valued at \$69,839.

Television Station WCPO-TV in Cincinnati used 1,116 special safety programs, 7,906 spot announcements and 938 safety mentions.



Vice-President for Public Information  
—BOYD LEWIS, Vice-President and  
Executive Editor, NEA Service, Inc.


MRS. BEATRICE BLACKMAR GOULD, Editor, *Ladies' Home Journal*  
W. EARL HALL, Managing Editor, *The Globe-Gazette*  
WILLIAM RANDOLPH HEARST, Jr., Publisher, *New York Journal and American*  
GEORGE JENNINGS, Director, Radio Council, Chicago Board of Education  
MRS. MYRNA JOHNSTON, Associate Editor, *Better Homes & Gardens*  
MRS. DOROTHY KEMBLE, Director of Continuity Acceptance, Religious and Educational Programs, Mutual Broadcasting System  
MISS LAURA LANE, Associate Editor, *Country Gentleman*  
ROBERT D. LEVITT, Director, Hearst Promotion Enterprises  
MRS. CLARA SAVAGE LITTLEDALE, Editor, *Parents' Magazine*  
KENNETH MAC DONALD, Executive Editor, *Des Moines Register & Tribune*  
GORDON MANNING, Managing Editor, *Collier's*  
T. S. MATTHEWS, Editor, *Time*  
WESLEY I. NUNN, Manager, Advertising Department, Standard Oil Company (Indiana)  
PAT O'BRIEN, Chairman, Motion Picture, Television and Radio Committee  
MISS HELEN C. OTIS, Executive Editor, *Woman's Home Companion*  
JOHN W. PACEY, Director of Public Affairs, American Broadcasting Company  
ROBERT K. RICHARDS, Vice-President in Charge of Public Affairs, National Association of Broadcasters  
BURR L. ROBBINS, President, General Outdoor Advertising Co.  
ROBERT SAUDEK, Ford Foundation  
CHARLES SCHNEIDER, Promotion Editor, *Scripps-Howard Newspapers*  
MAL HANSEN, President, National Association of Radio Farm Directors  
CHET SHAW, Executive Editor, *Newsweek*  
MISS HELEN SIOUSSAT, Director of Talks, CBS Radio  
MISS RUTH TREXLER, Manager of Religious and Educational Activities, American Broadcasting Company  
MRS. HELEN VALENTINE, Editor, *Charm*  
HARRY LEE WADDELL, Editor, Factory Management & Maintenance  
BASIL L. WALTERS, Executive Editor, *Knight Newspapers, Inc.*  
JOHN F. WHEDON, Vice President, Young & Rubicam, Inc.  
ALLAN M. WILSON, Vice President, The Advertising Council, Inc.

### Public Information Conference 1952-1953

Chairman: BOYD LEWIS  
Vice-Chairman: MISS JUDITH WALLER, Director of Public Affairs and Education, NSC Chicago Office  
Secretary: PAUL JONES, Director of Public Information, National Safety Council  
L. R. BLANCHARD, General Executive Editor, *The Gannett Newspapers*  
GEORGE A. BRANDENBURG, Editor & Publisher  
ROBERT U. BROWN, Editor, Editor & Publisher  
WELLS CHURCH, Director of News and Public Affairs, Columbia Broadcasting System  
MISS DORIS CORWITH, Supervisor of Talks and Religious Broadcasts, National Broadcasting Company

TED COTT, Vice President, National Broadcasting Company  
J. MONTGOMERY CURTIS, Director, American Press Institute, Columbia University  
JOHN EARL DAVIS, President, International Council of Industrial Editors  
DON ECK, Executive Secretary, National Editorial Association  
BARRY FARIS, Editor-in-Chief, International News Service  
CHARLES W. FERGUSON, Senior Editor, *The Reader's Digest*  
HARRY FERGUSON, Executive Editor, *United Press*  
ROBERT FUOSS, Managing Editor, *The Saturday Evening Post*





The Outdoor Advertising Association of America and outdoor advertisers donated 11,820 outdoor panels with a space value of \$330,960 in the three-month "Operation Impact" campaign.

The Memphis Commercial Appeal used 250 news stories, 60 features, 150 editorials, 10 cartoons and 90 photos on safety.

Television Station WBKB-TV in Chicago donated time worth \$5,990 in one month.

In the national consumer magazine field, Parade used nine major articles on safety. Coronet used seven. The Reader's Digest used five. Such leading magazines carried 62 other safety articles—a total of 83.

Among trade journals, The Commercial Car Journal used 16 major articles, eight editorials and six news items. The Constructor used 22 major articles, one editorial and 14 items.

### *The "Stop Accidents" Campaign*

On the advertising side, the "Stop Accidents" campaign conducted by The Advertising Council for the National Safety Council for eight years, reached new heights in the last year.

Newspapers alone carried 39,692 safety ads in the one year. Network and local radio and television programs carried safety messages to more than three quarters of a billion listeners. Wherever people went—to ball games, in public transportation, in their cars, their homes and offices—safety ads reached them.

### *Awards*

The Council's Public Interest Award for exceptional service to safety went this year to 183 public information media and 16 celebrities.

The Alfred P. Sloan Award for Highway Safety was conferred upon nine recipients in radio and television.


### *Safety Campaigns*

Public acceptance of the holiday safety campaigns conducted by the Council was greater this year than ever before. And National Farm Safety Week reached a new peak of participation and acceptance.

### *Magazines, Posters, Art*

The ten magazines produced by the Public Information Department's Editorial Division have reached an average total monthly circulation of 1,010,362.

The Poster and Art Divisions produced 315 new posters in the past year.





PAT O'BRIEN



DON McNEIL



BARBARA STANWYCK



GALE STORM



PHIL HARRIS



LORETTA YOUNG



GENE RAYMOND



RALPH EDWARDS



BING CROSBY



JEANETTE MacDONALD



GROUCHO MARX

## Stars of Safety

The 143 members of the National Safety Council's Motion Picture, Television and Radio Committee are outstanding personalities in the entertainment world. They contribute their talents by promoting safety on radio and TV shows, making recordings, posing for safety pictures, giving safety talks, and in a variety of other ways.

Pat O'Brien is the new chairman of the committee, succeeding Walter Pidgeon. Miss Gale Storm and Don McNeill are vice-chairmen. These are the other committee members:

LARRY ADLER  
GRACIE ALLEN  
CARLETON ALSON  
MOREY AMSTERDAM  
EDDIE ANDERSON  
(ROCHESTER)  
EYE ARDEN  
ART BAKER  
LIONEL BARRYMORE  
TOMMY BARTLETT  
JOHN BEAL  
JOAN BENNETT  
JACK BENNY  
MAX BENOFF  
GERTRUDE BERG  
EDGAR BERGEN  
JULIE BISHOP  
TRUE BOARDMAN  
CHARLES BOYER  
CURLEY BRADLEY  
(TOM MIX)  
JOHN BROWN  
(DIGGER O'DELL)  
GEORGE BURNS  
ABE BURROWS  
SID CAESAR  
ROD CAMERON  
JUDY CANOVA  
EDDIE CANTOR  
HOAGY CARMICHAEL  
CARROLL CARROLL  
JACK CARSON  
LEE COBB  
BUDDY COLE  
JERRY COLONNA  
CHARLES CORRELL  
(AMOS 'N' ANDY)  
JOAN CRAWFORD  
BING CROSBY  
ROBERT CUMMINGS  
JOAN DAVIS  
DENNIS DAY  
DORIS DAY  
ALBERT DEKKER  
GLORIA DE HAVEN  
ANDY DEVINE  
WALT DISNEY  
MELVYN DOUGLAS  
JIMMY DURANTE  
RALPH EDWARDS  
DALE EVANS  
JINX FALKENBERG  
JOHN FARROW  
ALICE FAYE  
PARKER FENNELLY  
(TITUS MOODY)  
GLENN FORD  
MONA FREEMAN  
JUDY GARLAND  
ARTHUR GODFREY  
NORRIS GOFF (ABNER)  
BILL GODWIN  
FREEMAN GOSDEN  
(AMOS 'N' ANDY)  
BETTY GRABLE  
JOHN GUEDEL  
JACK HALEY  
PHIL HARRIS  
REX HARRISON  
HILDEGARDE  
DICK HAYMES  
BILL HOLDEN  
BOB HOPE  
BETTY HUTTON  
BURL IVES

HARRY JAMES  
JAMES JORDAN  
(FIBBER MCGEE)  
MRS. JAMES JORDAN  
(MOLLY MCGEE)  
SAMMY KAYE  
JACKIE KELK  
GENE KELLY  
JOE KELLY  
CHESTER A. LAUCK (LUM)  
DOROTHY LAMOUR  
ART LINKLETTER  
MARY LIVINGSTON  
FRANK LOESSER  
GUY LOMBARDO  
FRANK LUTHER  
JEANETTE MacDONALD  
GUY MADISON  
(WILD BILL) HICKOK)  
BRENDA MARSHALL  
CHICO MARX  
GROUCHO MARX  
HARPO MARX  
TEX McCARY  
JACK MCELROY  
JAMES MELTON  
JOHNNY MERCER  
SAM MOORE  
J. CARROL NAISH  
MAUREEN O'HARA  
MAUREEN O'SULLIVAN  
LILLI PALMER  
JOHN PAYNE  
GREGORY PECK  
WALTER PIDGEON  
PAUL A. PIERCE  
JANE PICKENS  
ELEANOR POWELL  
DON QUINN  
ROBERTA QUINLAN  
GENE RAYMOND  
RONALD REAGAN  
IRVING REIS  
EARL ROBINSON  
ROY ROGERS  
LANNY ROSS  
ANDY RUSSELL  
DORE SCHARY  
DAN SEYMOUR  
THE SHADOW  
ANNE SHIRLEY  
DINAH SHORE  
SYLVIA SIDNEY  
GINNY SIMMS  
PENNY SINGLETON  
RED SKELTON  
PETE SMITH  
GALE SONDERGAARD  
THE SPORTSMEN  
ROBERT STACK  
BARBARA STANWYCK  
BARRY SULLIVAN  
ROBERT TAYLOR  
AUDREY TOTTER  
CLAIRE TREVOR  
FRED VAN DEVENTER  
WALTER WANGER  
JACK WEBB  
MARGARET WHITING  
DAVE WILLOCK  
MARIE WILSON  
JANE WYMAN  
LORETTA YOUNG  
ROBERT YOUNG



Vice-President for Membership:  
ROBERT T. ROSS, Manager, Employee Services, Industrial Relations, Ford Motor Co.

## Council Services

Safety services are now being furnished to well over 25,000 plants, offices and terminals through the Council's occupational, insurance and transportation members.

Membership service arrangements for the construction industry and for hospitals were recently revised and improved.

### Membership Growth

During the twelve months ending in July, 1,202 new memberships were received adding \$71,790 to dues income. The new dues total was 14% higher than the previous comparable figure. The special campaign of the Board and Industrial Conference, aimed at bringing every one of the nation's 1,000 largest manufacturers into Council membership, was a factor in the increase.

Membership cancellations, after declining for 5 years have now risen for two years, the current total accounting for \$31,950 annual dues. Although the current cancellation rate of 3.7% of dues is well below the 12.3% pre-war rate, the need to re-examine cancellation causes and remedies is apparent.

Total Council annual dues as of June 30, 1953, reached a new all-time high of \$940,000.

### Publications

Circulations of Council periodicals climbed 5% or 50,000 pieces per month during the past year. The new magazine, *SAFE BUILDER*, was launched with a circulation of 46,000, making a total growth of 96,000 pieces monthly.

Jumbo Posters and Operation Safety Kits led the list of publications, both of them showing 18% increases in use.

The number of orders for safety supplies (other than periodicals and automatic month-

ly poster services) rose to a total of 44,500—up 8%. The physical volume of material shipped from Council headquarters increased 37%.

Publications sales during the first seven months of 1953 were up \$113,000, or 9%, from the comparable months of 1952.

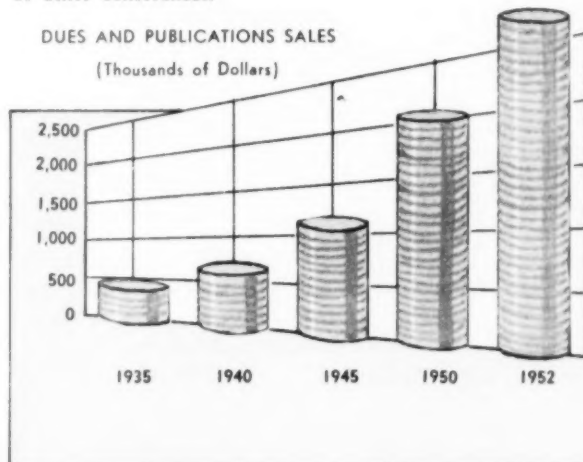
Reproduction of Section Newsletters by offset lithography was begun recently. All Newsletters will be produced by this method by the end of 1953. The new process permits the use of photographs, gives sharper illustrations and is easier to read.

### Keeping Members Informed

News of new services to members, as well as reminders of uses of established services, were carried to the membership by more than a million directories, circulars and promotional enclosures.

Service correspondence with members and prospective members (excluding consultation correspondence of the technical staff) reached a new all-time high of 26,600 letters.

The large exhibit, which was displayed at nine regional safety conferences in the past year, has been re-designed and re-built. Smaller exhibits were furnished for 16 trade association or other conferences.



## **Fact Finding**

### **Accident Facts**

The annual statistical book was again available in June, the Statistics Division having continued the policy of estimating fatalities for one additional year, rather than relying on later Federal counts. New items this year include:

#### **Occupational**

- historical employment and deaths in manufacturing and non-manufacturing construction injuries, with rates by type of construction and occupation
- new information on unsafe acts and conditions
- national estimate of ladder accidents.

#### **Motor Vehicle**

- changes in the seasonal pattern of fatalities
- circumstances of truck accidents
- death rates in foreign countries

#### **Home**

- recent home accident surveys

#### **Farm**

- new reports on deaths in Minnesota, injuries in California
- information on tractor accidents, particularly on highways
- circumstances of corn harvest accidents

### **Motor Vehicle Injury Reporting**

Motor vehicle death information provides but a partial picture of the traffic accident situation, especially when death totals in a particular area are small. Injuries, on the other hand, because of their more frequent occurrence, are less influenced by unusual circumstances and probably reflect more accurately the true accident situation.

For this reason, a program for collecting information on motor vehicle injuries to determine trends in injury accidents has been undertaken.

A decade ago changes in reporting laws and increasing completeness of reporting of accidents to official agencies rendered year-to-year data non-comparable. Now it is the consensus of officials that data will be comparable within a given state unless there are known to be changes in the law or reporting practices.

The injury tabulations accompanied by appropriate comment are being published monthly in *PUBLIC SAFETY* magazine, along with the analyses of death figures published before.

### **Accident Rates Pamphlets**

For the special statistical studies summarized in the Accident Rate Pamphlets, reports of industrial injuries were received from nearly 8,000 plants—about 10% more than in the previous year, and the largest number ever to report. Data covers 40 major industries with about 150 industry sub-divisions, and is presented in a set of 22 pamphlets.

The Accident Rate Pamphlet for motor transportation fleets was changed to encompass the final results of the National Fleet Safety Contest. In addition to the usual features, the pamphlet included the names of all contest winners, plus analyses of accident causes for two of the principal fleet classifications.

### **New Projects**

Plans to fill gaps in the statistical information about accidents moved ahead:

The Research Committee of the Industrial Conference, with the staffs of the Industrial Department and the Statistics Division, worked out details of an accident cost survey which will be under way shortly.

Plans and procedures for collecting information on accidents to college students were completed for use in the 1953-4 school year.

A procedural manual for analyses of farm accidents was prepared for the Farm Division.

Increased use of mechanical tabulation in connection with the Industrial Award Plan and Accident Rate Pamphlets enabled the Statistics Division to handle increased work assignments without additions to the staff, and with less seasonal temporary staff than formerly.



## Other Services

### Awards

The plan for recognizing outstanding industrial safety records, inaugurated in 1952, has earned confidence in its equity and reliability. During the past year, after analyzing 8,843 records submitted, 1,674 member organizations were judged worthy of recognition.

In the previous year, from the 7,150 records submitted, 1170 awards were made.

	<i>Perfect Records</i>	<i>Outstanding Reductions</i>
AWARDS—1953		
Award of Honor.....	82	234
Award of Merit.....	309	291
Certificate of Commenda- tion .....	348	—
President's Letter .....	410	—

### Library

A great amount of additional safety information was channeled into the Council's files to answer the reference service needs of a growing safety movement. Library personnel handled 13,200 inquiries from members, staff and others during the past twelve months.

### Contests

Two new Sectional contests were added this past year bringing the total number to 25. One of the new contests covers work injury experience in the Fertilizer Industry, and the other covers motor vehicle experience of police fleets. The number of monthly reporters in all contests increased to more than 6,800—13% more than in the previous year.

### Congress

Annual attendance at the National Safety Congress is now well past the 10,000 mark. Planning physical accommodations for the increasing number of Congress meetings (now 300-plus) was expedited this year by the Industrial Conference's new Congress Committee which allocated space for industrial Sections.

Improved procedures for handling advance registration have been developed.

### Films

In addition to the 10 films produced within the past 12 months, a total of 7 films from other sources were added to the Council's film rental library.

A new edition of the *National Directory of Safety Films*, describing 963 occupational and public safety films and listing their sources of supply, was included in the June issue of NATIONAL SAFETY NEWS for the benefit of industrial members. Copies were mailed to organizations with other types of membership affiliation.

### Safety Incentives

A number of distinctive emblems appropriate for awarding individual effort were developed in recent months. Group accomplishment awards emblematic of the Award of Honor, Award of Merit, Certificate of Commendation, Industry Safety Contests and National Fleet Safety Contest now may be obtained by qualified organizations. Meritorious Service emblems inscribed "Safety Suggestion Award," "Past Chairman Safety Committee" or "Past Member Safety Committee," and a new and better no-accident award also have been produced. All of these awards will be available on a variety of useful and popular items suitable for use in an award program.

### Service Facilities

With the addition of 10 new employees needed for the expanded activities of the past year, the Council's permanent staff now numbers 304. An additional 15,000 square feet of storage space increased the resources for stocking the large quantities of varied safety material needed by Council members. The number of different items carried in stock by the Council now exceeds 6,500.

Well over a million pounds of safety material was sent out from the Council's shipping room last year. Another million pounds of materials, mostly magazines, was handled for the Council through commercial mailing services.

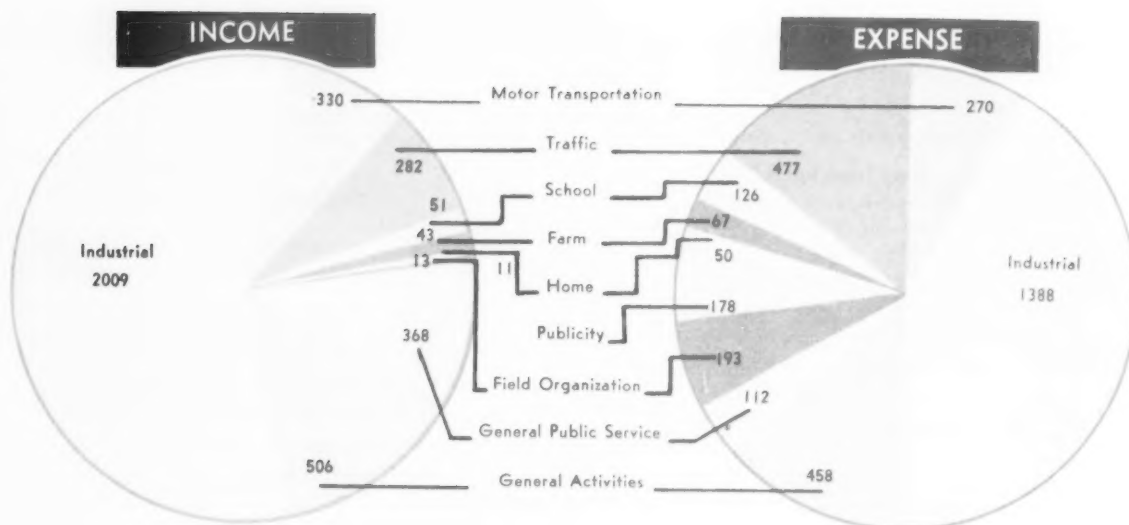
The policy of continuous modernization of equipment has been maintained throughout the year. New mechanical tabulation and office machines, reproduction equipment and other devices for greater efficiency and economy of operation were acquired.

# Activity

# Finances - 1952



Vice-President for Finance and Treasurer  
GEORGE F. GETZ, JR., President, The  
Globe Corporation



## INCOME AND EXPENSE

■ income

■ expense

Dues, publications and services  
Contributions  
Other income

Year 1952

Trend in First  
Eight Months, 1953

\$3,034,483  
538,023  
43,655

+ 6%  
+ 25%  
+ 91%

\$3,616,161

+ 10%

Publications and materials  
Technical and research  
Administrative and general office  
Sales of memberships, advertising and services  
Local Chapter and Council development  
Contributive fund solicitation  
Publicity

\$1,302,349  
730,145  
582,557  
311,919  
154,452  
99,078  
144,152

+ 20%  
+ 20%  
+ 19%  
+ 18%  
+ 1%  
+ 4%  
+ 12%

\$3,324,652

+ 23%

## ASSETS AND LIABILITIES, DECEMBER 31, 1952

### ASSETS

Cash	\$ 396,724
U. S. Government Securities	371,253
Accounts Receivable	418,905
Inventories	522,224
Deferred Charges	88,843
Equipment and leasehold improvements	326,001
	<u>\$2,123,950</u>

### LIABILITIES

Accounts Payable	\$ 74,701
Taxes withheld and accrued expense	30,919
Deferred income, unfulfilled membership and service contracts	732,000
Contributions held for special programs	100,719
	<u>\$ 938,339</u>
Net Assets employed for the benefit of members	\$1,185,611

## ***The Outlook***

The Safety Movement has never been in a better position to carry on the continuous struggle with accidents in every field of human activity. It is bigger, stronger, more vigorous and better organized than ever before in its 40-year history. It is getting more of the top level volunteer leadership it needs and deserves.

All who have joined the ranks of the great safety crusade can feel justly proud of the parts they have played. But there is no time for complacency. There is much ground yet to be won.

The National Safety Council pledges all of the resources and energies at its command to all individuals and agencies, organizations and groups who join in the unending battle to conquer the accident problem. And as the forces of safety continue to grow and redouble their efforts for a safer nation—at work, in homes, in traffic, in schools, on farms and in public places—we will win our **fight for life**.





NATIONAL SAFETY COUNCIL • CHICAGO, ILLINOIS



## The President's Medal

Awards made by the National Safety Council for successful application of artificial respiration

DANIEL LEASE, executive, Celanese Corp. of America, Rome, Ga. — gas asphyxiation. Certificates of Assistance to LAWRENCE V. CURRAN and FABIO FRANCO.

JOHN W. ALLQUIST, executive, Celanese Corp. of America, Rome, Ga. — gas asphyxiation. Certificates of Assistance to DR. GUSTAVE VASQUEZ and DR. MARIO MONTOYA.

MARILYN ROSENE, Luther, Iowa — electric shock.

RAMON SCOTT, head roustabout, Shell Oil Co., Hoisington, Kan. — gas asphyxiation.

### Safety Films

To enable readers of NATIONAL SAFETY NEWS to keep up-to-date on safety films between editions of the *Current List of Safety Films\**, the following information appears as a regular feature:

1. Descriptions of new films released for national distribution.
2. Descriptions of films previously available which were received too late for inclusion in the *Current List of Safety Films\**.
3. Corrections and changes in availability for films already listed.

### Research and Manufacturing

*Introduction To Compressed Gases* (35mm sound slide-film) color, 18 min. Discusses the properties, color, and uses of some more important gases; identifies storage cylinders; and stresses constant practices of safety in all operations. Source: United World Films, Inc., 1445 Park Ave., New York 29, N. Y. Availability basis: purchase.

*Safe Handling of Compressed Gases* (35mm sound slidefilm) color, 25 min. Using a negative approach, the film stresses the "don'ts" to observe in transporting, stowing, and handling gases. The importance of temperature and moisture control, protection of valves, disposition of empty cylinders, segregation of various



**Pioneering** work in human and economic betterment by Employers Mutuals has enriched the lives of thousands of employees and their dependents —and has improved production, conserved manpower and boosted organization morale for employers! Our **INDUSTRIAL NURSING DIVISION** was established in 1928, with the aims of helping prevent disease, reducing disability and contributing to employees' welfare—all at no additional cost to our policyholder-owners . . . . After 25 years of steadily expanded operation—above and beyond any contractual obligation—this fine service typifies the many which make Employers Mutuals "good companies to do business with."

## EMPLOYERS MUTUALS of WAUSAU

Home Office: Wausau, Wisconsin

Offices in principal cities...Consult your telephone directory

Employers Mutuals write: Workmen's Compensation-Public Liability-Automobile-Group Health and Accident-Burglary-Plate Glass-Fidelity Bonds-and other casualty insurance. Fire-Extended Coverage-Inland Marine-and allied lines. All policies are nonassessable.



EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN  
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

# IMPROVED TURNBUCKLES

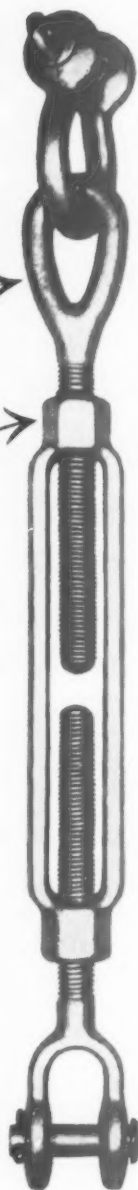
have

**NEW  
EYE DESIGN**

**HEX ENDS**

Laughlin's exclusive pear shaped turnbuckle eyes were designed to eliminate need for special shapes. It's the only eye that will take the ear of a shackle one size smaller than the turnbuckle. The shape makes it stronger than a round eye. It looks better and works better. The next time you need turnbuckles order Laughlin and see for yourself.

All Laughlin turnbuckles have hexagon ends and rugged reins. Easily adjusted with a wrench. Wheel-abraded finish dipped in a rust preventive or hot dip galvanized.



**FOR SAFETY'S SAKE SAY**

**LAUGHLIN**  
The Full Line of  
Wire Rope & Chain Fittings



THE THOMAS LAUGHLIN CO., 113 Fore St., Portland, Me.

gases, and safe practices are accented. Source: United World Films, Inc., 1445 Park Ave., New York 29, N. Y. Availability basis: purchase.

## Psychology of Safety

*Stay Alert—Stay Alive* (16mm sound motion) black & white. 12 min. Production date, 1953. Narrated by Lowell Thomas, the story of the continuous downward trend in American industrial accidents unfolds. The question—"Why?"—is answered by showing measures taken by typical industrial plant to insure workers' safety. Final analysis concludes that worker himself is answer to safety. He must do his part if safety experts are to succeed. Suitable for workers in any industry. Source: Aetna Life Affiliated Companies, Public Education Dept., Hartford 15, Conn. Availability basis: free loan.

## Railroads

*Your Job—Your Life* (16mm sound motion) color. 15 min. Production date, 1952. Deals with several phases of train service accidents. Covers cutting off cars, handling switches, operation of hand brakes and other operations hazardous through lack of safe practices. Using positive approach, the film is suitable for road and yard servicemen. Source: Superintendent of Safety, Canadian National Railways, 390 Notre Dame St. W., Montreal, Quebec, Canada. Availability basis: purchase.

For further information on safety films, contact the National Safety Council, Mr. Robert Powell, Director of Membership Service Bureau, or Nancy Lou Blitzen, Film Consultant.

The first quarterly supplement to the *\*National Directory of Safety Films*, a separately bound version of the *Current List of Safety Films*, is now available. The Supplement lists more than 50 films not shown in the *Directory* or *Current List*, plus changes and corrections for some 40 others. Single copies of the Supplement will be sent on request free of charge.

Copies of the Supplement and the *National Directory of Safety Films* can be obtained from the National Safety Council, 425 N. Michigan Ave., Chicago 11. Single copies of the *Directory* are 75c.

Statement of the Ownership, Management, and Circulation required by the Act of Congress of August 24, 1912, as amended by the Act of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233).

OF NATIONAL SAFETY NEWS, published monthly at Chicago, Illinois, for October 1, 1953.

1. The names and addresses of the publisher, editor, managing editor and business managers are:

Publisher—National Safety Council, Inc., 425 N. Michigan Ave., Chicago 11.  
Editor—Carman Fish, Chicago.

Business Manager—George E. Burns, Chicago.

2. The owner is: National Safety Council, Inc., an association—

Chairman of the Board—Charles R. Cox, New York.

President—Ned H. Dearborn, Chicago.

Vice-Presidents—Guy L. Noble, Chicago; W. A. Stewart, Southbridge, Mass.; William P. Yant, Pittsburgh, Pa.; Robert R. Snodgrass, Atlanta, Ga.; Robert T. Ross, Dearborn, Mich.; Boyd Lewis, New York; Dr. Herold C. Hunt, Cambridge, Mass.; Franklin M. Kreml, Evanston, Ill.; Miss Marion E. Martin, Augusta, Me.

Vice-President and Treasurer—George F. Getz, Jr., Chicago.

Secretary—R. L. Forney, Chicago.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 4 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show that the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semi-weekly, and tri-weekly papers only.)

CARMAN FISH, Editor.

Sworn and subscribed before me this 30th day of September, 1953.

PAUL H. STAEDKE  
Notary Public

(My commission expires September 11, 1954)

Wife, high up in football stadium, to husband: "I'd say these seats are comparable to a 3 1/2 inch screen."



## ... THEN WE INSTALLED ALGRIP Thus Doubling Production Efficiency And Lowering Big Insurance Costs



In a large Eastern rolling mill, a ramp from the production floor to a storage area above was so slippery from oil and grease drippings that a fork-lift truck could not climb the incline by itself. An unloaded fork-lift truck had to push the loaded one. Already a safety hazard, the slippery ramp also caused production inefficiency.

**INCREASED:**  
Production efficiency  
by more than 50%

**LOWERED:**  
Accident insurance  
premiums to save  
thousands of dollars.

When A.W. ALGRIP Abrasive Rolled Steel Floor Plate was installed on the ramp, skidding stopped, accidents were eliminated, and one truck did the job better than two did before. Greater production efficiency and lowered insurance rates paid for the ALGRIP installation. Safe for vehicles as well as men, ALGRIP gives even steep inclines a hard-gripping, anti-skid surface.

In ALGRIP, tough abrasive particles (the same as used in grinding wheels) put hundreds of tiny safety brakes in every footstep—making it virtually impossible to slip. ALGRIP never wears smooth—heavy use only exposes new abrasive particles. The tough rolled steel in ALGRIP makes this floor plate stronger than other abrasive floorings. For safety that pays for itself, get the complete ALGRIP story by writing today for our new Booklet AL-14—without obligation.

At your request, an Alan Wood Steel Company safety engineer will call on you to show you how ALGRIP can be profitably used in your plant to lower insurance rates, raise production, and eliminate accidents.

Over 125 Years of Iron and Steel Making Experience



**ALGRIP Abrasive Rolled Steel Floor Plate**  
**ALAN WOOD STEEL COMPANY**

CONSHOHOCKEN, PA.

Other Products: A. W. SUPER DIAMOND Floor Plate • Plates • Sheet • Strip  
(Alloy and Special Grades)





# KLEINS



201-NE Plier



5233 Klein-Kord Safety Strap  
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## The Taxpayer Gained

—From page 47

system is the universal use of personal protective equipment. Every man is constantly equipped and required to be provided with hard hats, safety shoes, eye protection and a personal manual of *Practical Safe Practices Regulations*. Transportation, parking lot hazards, the regular inspection system for heavy mechanical equipment, scaffolds, provision of shoring and trenches by anticipation and written preplanning—all helped to produce the accident-free exposure for so many men day in and day out. Mass meetings are held every three or four months to engender *esprit de corps* and the mass approach toward a unified objective. Daily inspections under this system are not only made by a group of people in the Safety Department, but also by craft superintendents, area engineers, and union stewards in rotation, biweekly.

Insistence on the wearing of safety equipment has paid off many times. At least three lives have been saved by hard hats alone. One man was struck on the head by a railroad tie which slipped from a railroad gondola car, one by a 2 x 4 timber which fell 20 feet and another was struck by a piece of 10-gauge steel 40 inches in diameter which fell from a 90-foot smokestack.

All especially hazardous work was controlled by published safety procedures sectionalized to crafts. Safety department representatives and plant foremen cooperated in inspections of all areas and issued work permits for extremely hazardous areas as another means of control. Cranes, power shovels and the like were not permitted to operate any closer than a 15-foot radius to overhead electrical power lines. Otherwise, such work had to be approved by the head of the electrical craft or the area superintendent or engineer involved, so that other measures could be taken in lieu of the 15-foot rule.

Of course, the cooperation of the medical department is an integral part of this system. A full-time doctor and several nurses man a well-equipped dispensary, dressing and treating all minor in-



juries which every worker was required to report immediately. In addition, x-ray service and therapeutic equipment is maintained along with a resuscitator and ambulance service.

The use of low-flash solvents and carbon tetrachloride is strictly prohibited. Safety solvents, of which great quantities are required, are used exclusively under specific preplanned working conditions.

One of the troublesome problems was the control of smoking in the many hazardous areas. It is not the easiest thing in the world to have 5,000 human beings tempted by the normal human inclinations to smoke.

As a result of the performance benefiting the workers, their wages, their families, the government was also benefited by a great reduction of potential financial loss through large amounts of unused compensation funds, which, of course, come from Mr. and Mrs. Average citizen, the taxpayer.

### Five-Star Contest

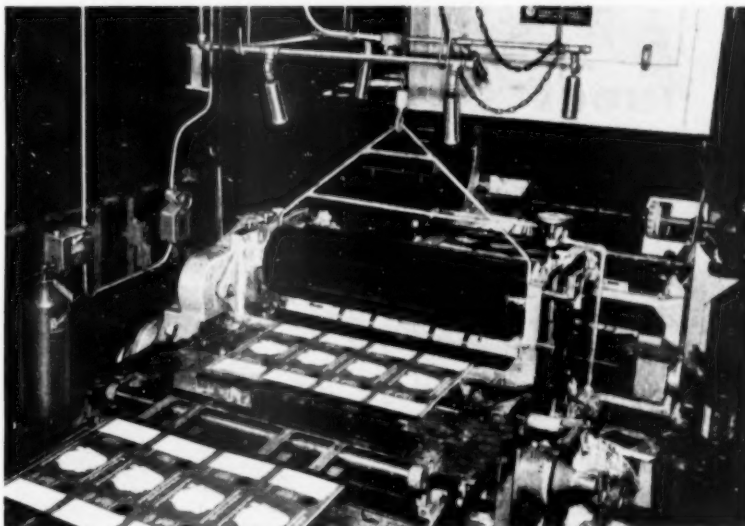
—From page 54

ers; (3) proper upkeep of ramp equipment; (4) storage and handling of materials; (5) ramp tidiness, including correct markings; (6) condition of gasoline facilities; (7) use of ramp equipment; (8) neatness of office and ticket counter areas; (9) proper storage of office supplies, and (10) the personal appearance of employees.

Scoring of on-time operations was based on each station's performance as averaged for April, May and June, 1953. Here it is necessary to point out that on-time operations depend both on the speed of aircraft and the speed with which they are unloaded, reloaded, fueled and otherwise provisioned at en route stations. United has determined the exact number of minutes in which each type of Mainliner should be readied for takeoff. Failure to service an aircraft within the specified time results in a late departure, which lowers the station's performance record.

In scoring performance, a station received 100 points if its percentage of on-time departures equaled the April, May and June

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average. An additional point also was granted for each percentage point of improvement over the three-month average. Conversely, a point was subtracted for each percentage point below the average. Stations which improved their performance by 93 to 100 per cent received a 25 point bonus.

Scoring of sales points was keyed to quotas previously established for each station. Attainment of quota was rewarded with 100 points and a 25 point bonus. An extra point also was given for each five per cent sales boost above quota. Stations which fell below their quotas lost the 25 point bonus and took a one point loss for each percentage point below 100 per cent achievement of quota.

Scoring of efficiency was based on each station's gain or loss in revenue as related to wage costs and in comparison with the same factors in May and June. This can best be explained in terms of a hypothetical station which in May and June averaged \$6,000 in wage costs and \$12,000 in revenue. During a contest month its revenue rose to \$15,000 and wage costs dropped to \$5,000. The station's score for efficiency would be derived by dividing 5,000 into 15,000, resulting in 3.0; and 6,000 into 12,000, resulting in 2.0. Since 3.0 is 150 per cent of 2.0, the station would receive 150 points.

Results in other categories of the contest attest to the enthusiasm with which employees responded. Only six reportable accidents occurred at United's 47 line stations in July, only five in August. Thirteen per cent of all stations achieved flawless records in house-keeping in July. In the following month 89 per cent of the stations had perfect scores.

Passengers and shippers benefited from the contest through substantial gains in on-time performance. July and August were periods of peak traffic. Even so, 87 per cent of stations chalked up gains in on-time departures in July, using April, May and June as the standard of comparison. And, on the same basis, 85 per cent of stations scored improvements in August.

Station competition throughout the contest was brisk in all cate-

gories, due to the attractive prizes offered. All qualified employees at the winning station will receive expense-paid weekends for themselves, wives or husbands, at either Los Angeles or New York. Certificates for \$25 in merchandise at local stores will be awarded to employees at the second-place station. Those at the third-place station will get \$10 certificates.

In summing up the contest, H. J. Merchant, United's manager of ground services-line stations, reports that it has proved the most successful ever devised to upgrade line station activities.

"We are immensely gratified on all counts," he said. "We are confident that the concern of the individual employee with ramp safety, improved operations, and other activities covered by the contest will endure long after the prizes have been awarded."

### Who Is Morally Responsible

—From page 58

"faults . . . inherited or acquired by environment." This over-emphasis on separate approaches to the individual forgets there is a moral cement holding the individual together.

The professionalization effort of safety men is one outcome of this condition. It is an urge to be experts in an age of experts, to raise standards of performance by means that exclude a broad approach to safety. Certainly the title safety engineer infers a vital concern with environment and heredity, but little of the moral stamina on which the safety role of management and the worker depend.

### Other Examples

Where else in the current safety scene is there evidence of management's reluctance to stress the employee's moral responsibility?

Look at safety clauses in union contracts. Admitting that the word moral cannot help but raise emotions in labor relations, a safety clause is a logical place to state or infer management and employee moral obligations. A Bureau of Labor Statistics study of safety clauses gives several examples of agreements in which unions agree to encourage compliance with

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safety rules and use of safety equipment. Some clauses even mention that employees as individuals, distinct from their union membership, will comply with safety rules and cooperate with management in accident prevention. Yet all clauses reviewed stated clearly only management's responsibility, complete with heavy moral overtones, without inference that each worker shared in the same obligation.

Look at the 1952 Presidential Conference on Industrial Safety. There was talk of employee caution and participation in safety promotion, but little more. Vincent P. Ahearn, director of the conference, sounded management's theme when he said, "The President's Conference is not concerned with legislation, nor is its interest limited to industry in terms of manufacturing industry only. Furthermore, the Conference assumes that safety is management's business and management's responsibility."

Mr. Ahearn made it clear how management stood on the question of such power groups as government or labor usurping its safety role. He did not do so on the possibility that the powerless employee, whose life is at stake, might be included in the charmed circle of responsibility.

Look at house organs. Do they suggest that the worker stands on the same moral ground as his employer when it comes to safety? I hope so. I haven't seen it done. Perhaps to do so would be "outdated thinking" or "poor employee relations" to some industrial relations policy makers.

### Attitude Causes

What's behind management's attitude? Why does it beg the issue of worker accountability?

Background cause number one is management's guilty conscience about its reluctant role at the birth of the safety movement. And the conscience pangs have been aggravated by those who insist that managers should pay for the sins of its fathers.

Massachusetts began such minima as factory inspection in 1867 and compulsory machine guarding in 1877. Management did not start a voluntary, concerted effort



until 1882 when the Illinois Steel Company formed a safety department in its Joliet Works. Horizontal safety thinking between employers waited until 1907 for the first meeting of the Association of Iron and Steel Electrical Engineers, only a year before the first state passed a workmen's compensation law. Even then the employer's common law defenses died a slow death.

In the early years of the safety movement management had far more concern for employee responsibility, legal, economic or moral, than for its own. Now management's moral hangover about past sins inhibits any attitude that whenever its own responsibilities are met, but unsafe acts are still committed, the worker can be morally judged right or wrong in the last resort.

Background cause number two of management's attitude is its adoption of the specialized approaches to safety problems with their fragmentary, technical emphasis.

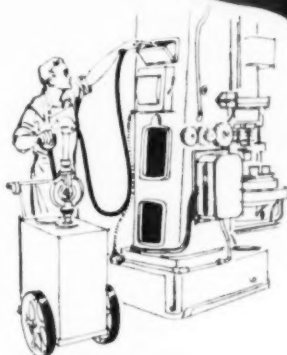
Within the safety movement management has produced some enviable safety records for all employers to achieve. However, when management puts on an eye protection program it is so sold on specialization that it will overuse two-tone warning signs and Keystone tests and forget to put the moral heat on the operator who left his glasses at home or in his locker.

#### New Attitude Wanted

Management's present attitude—or lack of one—about a worker's moral obligation for safety is unhealthy for the safety movement. It can be changed if management considers this: the individual worker inherently has the capacity and strength to be judged qualitatively by the same moral standard as is management in matters of safety. To deny this is to insult him as a pawn, forever being acted upon by specialists from all points of the compass, rather than someone who can be constructively motivated by a code of right and wrong.

The man in the plant deserves better than to be so treated that he continues to expose splinters of himself to be picked by safety men,

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doctors and lawyers. Seen and treated as a moral equal of management he will have the ultimate self-restraint to keep his hands out of the machine.

## References

1. H. W. Heinrich, *Industrial Accident Prevention*, (New York, 1950), p.14.
2. Bureau of Labor Statistics, *Collective Bargaining Provisions, Safety, Health and Sanitation*, No. 908-14, (Washington, 1949).
3. NATIONAL SAFETY NEWS, July, 1952, p.40.

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—From page 35

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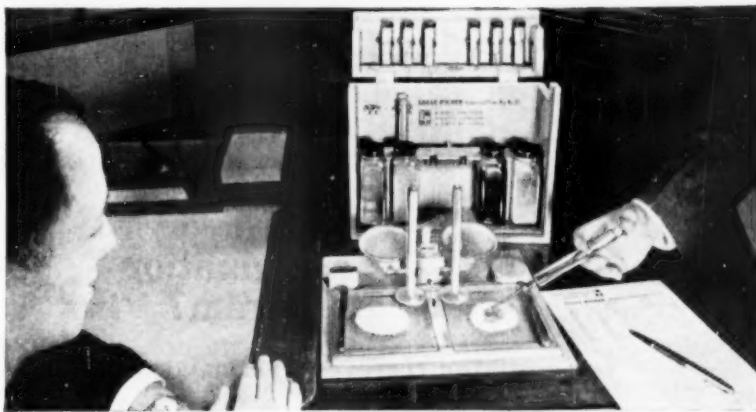
—From page 50

The solution goes beyond the gates of the shipyard. It must be an educational process which will instill a greater sense of responsibility in the minds of the workers—a constant repetition of drastic results of accidents, even to the extent of using "scare" psychology. We are contacting individual workers in the most intimate manner we can think of and we feel that a personal letter is the best approach. The letter is not distributed in the yard; it is sent to the man's home. It stresses the part that the worker's wife and family play in his well-being and steady occupation. In this way we feel that the wife will become an agent in the safety program.

The letters are particularized. For example, welders and burners will receive a letter stressing hazards of their particular occupation, at another time carpenters are contacted, then machinists and painters, and so forth. The letters are repeated periodically. Foremen and leaders are advised of each activity so they can give it impetus whenever the occasion arises. The first aid office is an

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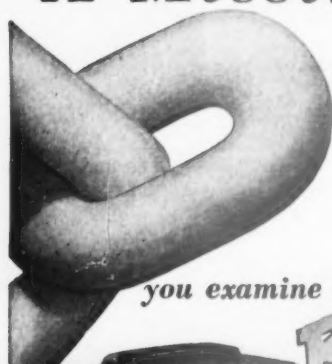
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important factor in the safety program because a record is kept of each injury and it is possible, in this way, to find the "repeaters" and study them more closely to determine whether or not they are "accident prone," in which case they find more security in a less hazardous area.

It may be possible, at a later date, to give facts and percentages on the decrease of accidents. Meanwhile, we can work and hope. If we can instill in the minds of workers even a small percent of the concern we have for their personal wellbeing, we shall have taken a long stride in accident prevention.

### Facts About Welding

From page 68

protected, dry location away from radiators, other sources of heat, and well away from highly combustible materials. Unless fuel gas and oxygen cylinders are well separated they should have a fire-resisting partition between them.


Cylinders may be stored in the open. They should be protected from an accumulation of ice and snow.

Empty cylinder valves must be kept closed. A cylinder which is empty for all practical purposes actually has some gas in it, although it would require a vacuum pump to remove it. Variations in temperature cause pressure variations of gas remaining in the cylinder. With the valve left open, the cylinder gives off some gas into the surrounding atmosphere or takes in some surrounding atmosphere and mixes air with a flammable gas in the cylinder.

Compressed gas cylinders should never be used for any but the particular gases for which they were made. Mixing of gases in cylinders by users should be frowned upon. Cylinders should be charged only by those who can conduct this operation under careful control, with proper equipment, and with full knowledge of precautions to be observed and by, or with the consent of the owner.

### Cylinder Identification

There has been much discussion on identification of gas content of



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the compressed gas cylinder. Some believe they should be marked in reasonably sized letters and preferably on the shoulder of the container, giving at least the chemical name or a commonly accepted name of the gas in the cylinder.

Others argue that identification should be by color or, at least, the cylinder should be painted with a color to supplement the container marking.

We believe color should not be used to identify cylinder content. Among reasons for not using color are: There are hundreds of gases and combinations of gases and an attempt to use a color, or combination of colors to identify each gas would lead to confusion and mistakes. Hard service given cylinders may damage, discolor, or conceal paint. A considerable number of persons are color blind. Colors appear differently under some lights such as fluorescent and mercury vapor.

#### Acetylene Generators

Some consumers may wish to produce their own acetylene in an acetylene generator and pipe the gas to various stations throughout the plant. It is important to buy an acetylene generator from a reliable manufacturer. Recommended generators are listed by Underwriter's Laboratories, Inc., Chicago, or Factory Mutual Laboratories of Boston.

Under no circumstances should acetylene be generated in make-shift or home-made equipment. It is equally important that an acetylene generator be installed and operated strictly in accordance with printed manufacturer's instructions. The installment should agree with standards of the National Fire Protection Association for installation and operation of welding and cutting gas systems as in Pamphlet No. 51, National Board of Fire Underwriters.

#### Fire Protection

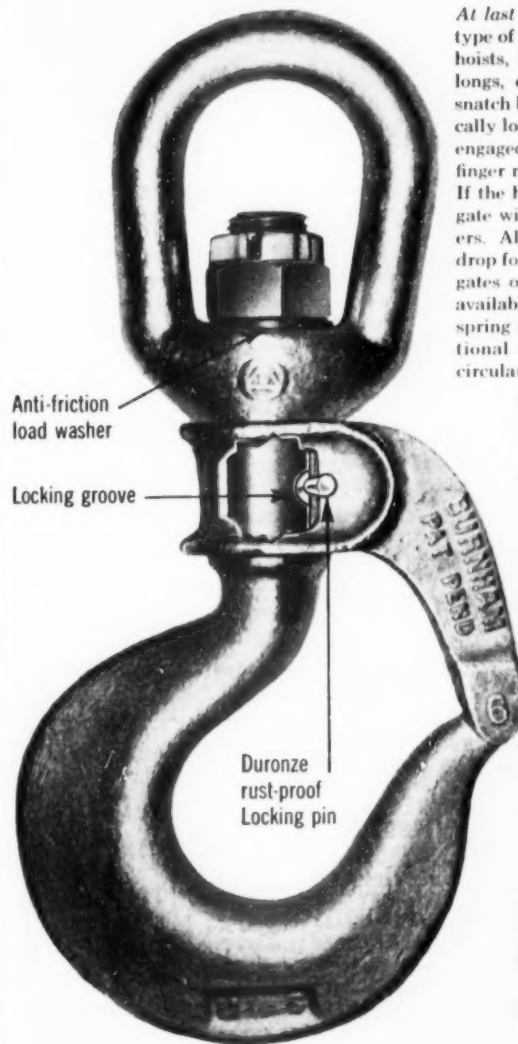
Fires may result from careless welding and cutting operations. Oxy-acetylene flame must not be where a flame, or open light of any kind, would not be permitted as, for example, near flammable liquids.

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rarely the cause of fire. Fires are largely caused by globules of hot metal, and slag from cutting operations, rather than from welding. Studies also show the greatest percentage of all fires during welding and cutting occur while using portable equipment. Of these a great majority arise from cutting during repair, alteration, or in some intermittent use, and from such portable cutting operations when they are not under direct supervision.

Containers that have held materials which may produce flammable vapors or gases must be cleaned thoroughly and otherwise rendered safe before welding or cutting in, or on, them. This practice is detailed in *Safe Practices for Welding and Cutting Containers That Have Held Combustibles*, an American Welding Society publication.

#### Welder's Clothing

Clothing worn by the welding and cutting operator is important. It should adequately protect the body, especially feet, legs, and hands, from sparks and heat. Clothing should be kept free of oil or grease. Woolens, more fire-resistant than cotton, are preferred.

#### Health and Radiation Hazards

Welding presents radiation hazards in the form of intense light, glare, infra-red and ultraviolet exposures. In gas welding there is little, if any, exposure to ultraviolet rays, but intense light and glare require eye protection with suitably colored lenses.

Face shields and protective clothing must cover all exposed skin areas in arc welding which produces ultraviolet and infra-red radiation in addition to glare, and eyes must be protected by deeper shades of lenses. Helpers and others in the vicinity of arc welding must be protected with suitable goggles or screens. For arc welders, ventilated booths painted with dull non-reflective paint, are recommended to reduce amount of reflected rays where this is practical.

#### Metal Fumes

Metal fumes may be hazardous or they may be a nuisance factor. Some of the harmful ones may not be formed in sufficient con-

centrations to be hazardous.

Lead fumes are a distinct hazard. They may be generated wherever welding or cutting operations are applied to lead-bearing or lead-coated parts, or lead painted surfaces. The worker cannot be too careful in avoiding lead, cadmium, and beryllium fumes. The best protection is a proper air-supplied respirator. If this is not available, the Bureau of Mines approves some filter-type masks as protection against certain toxic metal fumes.

Welding on brass or bronze, use of a bronze filler rod, or welding on zinc-coated surfaces or other non-ferrous metals such as copper, involves exposure to fumes which may result in metal fume fever, commonly known as zinc chills. This is an acute condition, developing a few hours after exposure, and seldom lasts for as long as 24 hours. It is self-limiting, without known complications, after-effects, or chronic form. Daily exposure often results in an immunity which lasts as long as regular exposure continues. Workers in brass foundries have been subjected to this effect quite frequently without fatalities. A man with special susceptibility should be put on other work.

Prevention of metal fume fever requires adequate ventilation which may entail local exhaust ventilation in confined and poorly ventilated spaces.

So-called nitrous fumes, or oxides of nitrogen, are sometimes alleged to be a hazard in welding. Higher oxides of nitrogen are dangerous, but they are rarely produced in hazardous quantities in welding processes. Nitrous fumes could be a possible hazard in very confined spaces where unusually large flames are employed. Proper ventilation will prevent this.

Occasionally, there have been unconfirmed statements alleging injuries to welding operators from carbon monoxide. Minute quantities may be present in any flame and carbon monoxide is generated whenever a flame touches cold materials, even in the case of a tea kettle placed on a gas stove in the home. So far as industry is concerned, it is quite

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unlikely that any hazardous amount could accumulate, if simple precautions are followed when working in confined spaces. Whether or not any of these conditions exist, where men are cutting or welding in confined spaces, there must be suitable ventilation.

Atmosphere inside a tank or other unventilated space must be known to be non-hazardous before work is started. When contents are unknown, they should be considered hazardous until proved otherwise. Depletion of oxygen must be guarded against in confined spaces as well as too great an increase in production of carbon dioxide from welding and cutting processes. Heat, produced by welding and cutting, and the possible effect on the operator, must be considered.

Recently, it was alleged that thoriated tungsten electrodes as used in inert gas shielded arc welding created a health hazard. The allegation was based on the fact that when these so-called "non-consumable" rods are burned, radioactive thorium is released from the arc and becomes air borne as a fume. The health and safety division of the Atomic Energy Commission made a thorough study of the matter. Tests and results were published in the March, 1953, issue of *Industry and Welding*. The amount of activity released at the breathing zone of the operator is well below the maximum permissible concentration and no health hazard to the operator or other room occupant exists. No special ventilation to protect against radio-activity is indicated except possibly in a small totally enclosed space.

Recently John J. Ferry and Gordon B. Ginter reported in the December 1952 *American Industrial Hygiene Association Quarterly*, their investigations of gases produced by inert gas welding, the production in the air of ozone and oxides of nitrogen in ordinary welding, and effects of trichloroethylene vapor when it was present in the air as a result of a degreasing operation.

They found that concentration of oxides of nitrogen was far below the permissible maximum and the highest concentration of ozone

obtained was six-tenths part per million which is well below the one part per million usually accepted as a permissible maximum.

They did find that a high concentration of the toxic gas phosgene was produced when there was trichloroethylene vapor in the atmosphere. The reaction appeared to be photo-chemical because the phosgene was produced instantly throughout the area when the arc was struck and its production ceased when the trichloroethylene vapor was shielded from the arc by a glass funnel. The lesson learned was that degreasing operations with any chlorinated solvent should not be conducted in the same room with arc welding operations.

With good equipment, safe working conditions, and properly instructed employees, we still hear of an accident due to an unsafe act. How can we get people to work safely?

We have several appeals. Some of the more important are listed by S. F. Spence, director of safety and fire prevention at American Cyanamid Company: Self protection, the desire to stay well and physically sound. Love and obligation to family. No loss of income. Pride in work, fear of criticism if involved in, or cause of, an accident. Desire to avoid inflicting injury on others. Desire for advancement which comes from record of efficient accident-free production. It is not too difficult to present all of these appeals in such a way that a person will recognize them as applying to his own interests.

Employees of one hundred-men plants, or smaller, have about two-thirds of all occupational injuries and fatalities. We believe that an association is in an extremely favorable position from which to initiate and coordinate action to secure reductions of these lost-time injuries and fatalities.

There are few, if any, associations whose members and their industries would not profit greatly by a safety program developed and sponsored by a competent safety committee. They can secure plenty of help from the National Safety Council and other safety groups.





# SEE CLOTH

## CLEANS AND MISTPROOFS

### WHAT SEE CLOTH IS:

**SEE CLOTH** is a chemically treated fabric which when rubbed on glass both cleans and prevents fogging or misting. It has found use in industry as a convenient method for cleaning and preventing the fogging of goggles of workers who must protect their eyes in various industrial operations.

### ECONOMICAL:

It is the most convenient and economical method known for this purpose. One piece (8" x 9") will last for a number of months, when used on goggles or glasses.

### INCREASES WORKER SAFETY:

The fact that the worker has the means for preventing misting of his goggles right on the job increases the safety of the operation since it reduces the temptation to continue to work with misted glasses. He can fogproof them without leaving his work.

### HOW TO USE SEE CLOTH:

All that is necessary is to wipe the dry glasses with the dry **SEE CLOTH** and thus mistproof the glasses for a considerable period.

### OTHER USES:

**SEE CLOTH** has also found use in preventing misting of the inside of windshields in foggy or damp weather. Here also all that is necessary is to rub the dry glass surface with the dry **SEE CLOTH**. Mist will then not form on the area that is rubbed. Other applications include its use on spectacles, mirrors, windows, etc.



### HOW SEE CLOTH IS PACKAGED:

**SEE CLOTH** IS SOLD IN 8" x 9" pieces, packed in a polyethylene envelope which fits easily into the pocket of the coveralls so that the worker can use it right on the job with practically no lost time.

**SEE CLOTH** is also available in larger pieces for windshields or by the yard (36" wide). Special sizes cut to order.



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## Proving Ground

—From page 27

ous when mixed with other materials. In a gaseous state, it can create a serious fire and explosion hazard if contaminated with such organic materials as oil, grease, paper, cloth or wood, and can become explosive when subjected to shock or ignition.

Even aviation gasoline, and other gasolines containing tetraethyl lead, can produce symptoms distinctly uncomfortable to personnel in that the absorbed lead is responsible for the poisoning which may appear in an acute or chronic form. Such poisoning has been known to result in acute maniacal attacks and it is said to produce an increased susceptibility to tuberculosis. Ethyl alcohol, when mixed with air at certain temperatures, will also act as an intoxicant and is highly explosive.

Many safety precautions are taken to maintain the present safety record at the Proving Ground. Nothing is ever left to chance and every changing phase of fuel handling operations is planned for the utmost safety of personnel and property.

Oxidizers are stored separate from combustible materials and neither are stored in buildings, magazines, or main storage areas in which pyrotechnics, explosives or ammunition is stored. All access roads are blocked to unauthorized personnel and are posted with warning signs during all missile and rocket operations.

Since potential danger cannot be entirely eliminated while the missile program progresses, safety officials continue to study and devise new methods for the protection of its military and civilian personnel and equipment and facilities needed for the mission of the installation.

## Placement

—From page 23

In the D group, there were 15 cases of hypertension; eight cases of hypertensive cardiovascular disease; three cases of rheumatic heart disease; two cases of hypertension and hernia; two cases of

bronchial asthma; one case of pulmonary tuberculosis; one case of nephritis and chronic alcoholism; one case of varicose veins severe; and one case of pleurisy with effusion.

Preplacement examinees not recommended for employment in the hotel industry totalled 6.3 per cent. Approximately \$10,000 in compensation insurance costs, life insurance, disability benefits, etc., was saved as a result of this evaluation. The preplacement examination service available at the Hotel Health Center has been acknowledged by the New York State Employment Service, which operates the Hotel Placement Bureau, as a distinct aid in job evaluation and placement.

In addition to the preplacement program, we have instituted periodic physical examinations on an annual basis. The special value of this procedure is twofold:

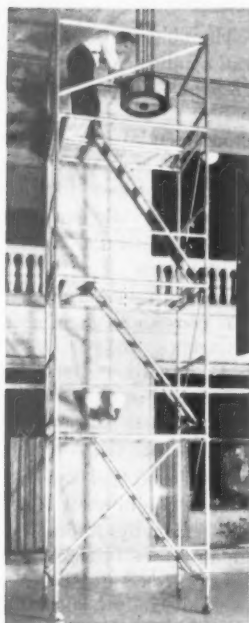
1. It is the most satisfactory method for assuring case findings of each disease, as early tuberculosis and syphilis at a stage where treatment has every chance to be successful in returning the worker to normal, and before there has been long-continued exposure of others to the infected individual both at home and at work.

2. It is of great aid in the early detection of chronic degenerative conditions, especially those of the cardiovascular system, for which a modified living and working regime is indicated in order to prolong the period of useful activity for many highly skilled or responsible workers. When requested, medical reports are available for the employee's private physician.

With the institution of the Periodic Physical Examination Program, several factors have been considered:

1. Examinations are done with the cooperation, approval and good will of the workers. A publicity campaign through the publications of the union and management has been enlisted to get the interest of the employees by teaching how great a benefit such examinations are to the workers themselves.

2. Inasmuch as this program is a new departure, periodic health examinations are offered to old hotel employees as a voluntary



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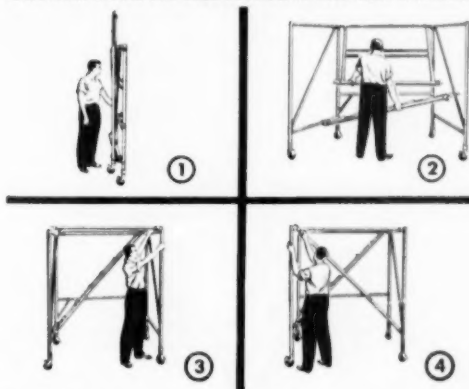
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Write for illustrated Bulletin ASF-1

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measure. The older personnel has an important influence in a hotel, and it is desirable that they should heartily believe in the idea.

3. The confidential relationship between patient and doctor is maintained at all times, and all records of such periodic examinations are solely under the control of the Health Center. This rule is scrupulously regarded and the fact should be constantly impressed upon the workers.

4. The examination is planned in such a way that an opportunity is given for personal conversation of the applicant with the doctor in order that the object of the proceeding may be carefully explained in each case. Equally, findings of the examination are tactfully and patiently interpreted to the examined without unduly alarming him, before his discharge. Personal contacts afford time to discuss with the employee personal habits that influence health, such as sleep, rest, recreation, cleanliness and good nutrition as well as any specific problem.

Periodic examinations are required for health maintenance. Ideally, inventory-taking should include sociologic as well as physical findings. If this program is carried out consistently, it will make for happier and more successful persons as well as healthier ones, because it is governed by an environmental as well as a medical point of view. Moreover, promotion of health in this fashion not only increases the employee's value as a worker, but also as a total person who, in turn, should become a useful citizen in all aspects of community life.

Preplacement examinations, on the other hand, are of vital importance because the whole program of the relation of man to his working environment is daily assuming an increasingly important role in all industries. The understanding doctor, one who is familiar with the different jobs and processes in the hotel industry, can be of considerable help to employees and employer alike.

The following case histories have been chosen to exemplify a situation where a preplacement examination, if given, would have insured proper job placement; and

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the other where a candidate for employment was safeguarded by preplacement examination revealing physical incapacity for the job.

#### Case History:

Male, age 49, employed as a cook at one of the hotels, appeared at the Health Center on August 22, 1951, for a complete physical examination with main complaint of blurring of vision, especially on close reading.

Previous history: He denied any serious illness or operations.

On October 12, 1951, he reappeared giving a history of accident that occurred while working with the complaint of severe pain in his right buttocks extending down the entire right lower extremity. Impression at this time was sciatica. As first aid, injection was given to relieve the severe pain, and he was advised to see his own family physician, who gave further injections and physiotherapy treatments.

On January 8, 1952, he reappeared at the Health Center. His chief complaint was burns of the left arm caused while working; another compensable accident.

Finally, on February 10, 1953, he stated that he had dizziness on his last two jobs. In fact, a further history indicated that in April, 1940 he had had fainting spells, became dizzy during which time he would fall on his face, bite his tongue and become semi-conscious. In addition, he gave the same history of fainting during 1951 and 1952.

Diagnosis: Epilepsy.

Conclusion: This is a typical case of a man who was never examined on a preplacement basis. Medical care has been costly. He is accident prone due to his physical condition. He has been advised to seek employment away from stoves; that will not be injurious to himself nor affect the safety of his fellow employees.

#### Not Recommended:

Male, age 47. Formerly employed with a window cleaning company. Applied for a position of window cleaner with one of the hotels. General appearance was good.

Physical examination was essentially negative, with the exception

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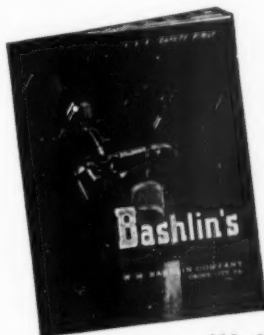
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that he had extremely high blood pressure with dizziness, headaches and other symptoms referable to hypertension.

Following preplacement examination, the personnel manager of the hotel was advised that this man was not physically qualified for employment as a window cleaner.

Good general evidence of the value of industrial medical care may be found in a study involving some 3,500 plants, made by the National Association of Manufacturers in 1951. The surveyed companies, representing every section of the United States, constituted a wide range of sizes and types. They reported the following average savings from medical care programs, which at first may seem too good to be true:

A 44 per cent drop in accident frequency;

A 46 per cent drop in occupational diseases;

A 29 per cent drop in labor turnover;

A 39 per cent drop in absenteeism;

A 30 per cent drop in compensation insurance premiums.

The keystone of any worthwhile program is a provision for replacement and periodic physical examinations. Reasons:

1. Such a set-up minimizes the hiring of persons for jobs they are not physically equipped to fill.

2. It enables an employer to place handicapped persons where they are most suited.

The first point is obviously a big factor in avoiding accidents. The second is of special importance these days, when a tight labor market makes industry rely more and more on elderly and physically handicapped persons.

### Respiratory Protection

—From page 25

gravitation factors, is becoming a serious problem.

Workers should not be required to wear respirators for long periods. If this type of protection is necessary, then an analysis should be made of the operator technique

and/or the job requirements. Invariably a change in one or both is found necessary.

A preventive cleaning, sterilization and maintenance program should be developed for all respirators used in a plant. This should not be left to the individual worker. A program of this sort is feasible in a moderate sized and large plant, but it has its inherent difficulties in the smaller plant. For this set-up, one intelligent operator may be assigned to this work, possibly with some extra compensation as an incentive.

### Chemical Cartridge Respirators

In all cases, facelet cloths should be provided for all types of respirators as a means of reducing face rash in hot weather. Creams applied to cheek areas are also desirable, and should be provided for all personnel who use respirators.

An ever increasing field for the

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use of chemical cartridge respirators is in spray-coating operations. Depending upon operator technique and the type of units being sprayed, such as flat surfaces, cabinets or refrigerator type units which do require the operator to work close to or almost inside of the unit, then it may be mandatory for a respirator to be worn during the entire working day.

Some chemical cartridge respirators are provided with cotton buffer covers placed ahead of the replaceable chemical cartridge to catch the pigment overspray. These pigments are usually non-toxic. Lacquers and synthetic materials sprayed in modern industry do not contain lead. Periodically, spurious claims for lead poisoning are reported by unsuspecting physicians, who know little about industrial operations and take the word of a patient . . . that they are spraying lead.

The function of the chemical cartridge is to remove a large percentage, or almost all of the solvent vapors contained in the overspray to which the sprayer is exposed. It is, therefore, the responsibility of the sprayer to change the cartridge as soon as he can smell solvent through the respirator. For those who have lost the sense of smell, this becomes a serious problem.

Inhalation of solvent vapors without the protection of chemical cartridge respirators will cause headaches and possibly in some instances, gastro-intestinal upsets. These are not too serious but should be guarded against.

#### Canister and Air-Supplied Masks and Respirators

Though chemical cartridge respirators are to be used in atmospheres which are not immediately dangerous to life, or containing not more than one tenth (0.10) per cent organic vapors by volume or 1,000 parts of vapor in one million parts of air, it is indeed rare that determinations are made of vapor concentrations in a working environment to evaluate what type of respirator is required. Practical experience of the plant or extensive field experience of the technical representatives of the respirator manufacturers are the best

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## WELDER'S CAPE

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ONOX  
SPONGE RUBBER  
FOOTMAT

**Used by Over 70% of the  
Largest Industries in the United States**

*No splash • No mess • No waste • Odorless*

*Easy to maintain • Nothing to get out of order*

*Men like Onox • It relieves tired, aching feet*

Modern research has upset the old theories about Athlete's Foot control. Skin specialists now say that the best chance of preventing Athlete's Foot is to improve the condition of the skin. *That's what Onox does.* Onox mineral salts toughen the skin and make it resistant to fungus growth. No fungus growth—no Athlete's Foot.

### 60 DAY TRIAL OFFER

We will ship prepaid your trial order for any amount of Onox and footmats. *You pay nothing* unless fully satisfied after 60 days' use.

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### Warning! — Here's The Danger Spot

Stop using dangerous, old fashioned hand, foot and bar methods of closing hopper bottom car doors with latch-type locks.

Prevent ruptures, strained backs, smashed fingers and other serious injuries by providing the Prescott Safety Tool. Write today for free folder. **THE TRUMBULL MFG. CO., WARREN, OHIO.**

reliance for the proper type of equipment to be used.

In the case of irritant gases such as ammonia, chlorine and formaldehyde, it is essential that the proper type of canister unit be located not only in, but adjacent to the potentially dangerous area so that in an emergency, plant personnel will be able to use the protective equipment to the fullest advantage.

Canisters should be date-stamped upon receipt. If kept on a shelf in supply area, these canisters should be changed about every three years. If connected to a mask and not used for a year or so, they should be replaced yearly. A record of the canister use may be recorded on a 3" x 5" card kept inside of the carrying case. On this card, may be listed the date, length of time in use, reason for use and the users name. This is an additional safety precaution which should be seriously considered by safety personnel and supervisors.

Periodic inspection of these record cards may save a man's life. The mute evidence of a depleted canister cannot revive a life which has been needlessly sacrificed because someone thought the equipment was ready for an emergency.

One manufacturer provides an automatic timer with a half-white and half-red indicating dial, which reveals at a glance how much service life remains in the canister. This mechanism is actuated only by the process of breathing.

Too much stress cannot be placed on the use of proper canister-type equipment. They should not be used for exposures where there is a lack of oxygen. This requires an air-supplied mask or respirator, coupled with a safety belt and life line held by an operator outside of the exposure area such as a tank or manhole.

The preservation of the lives of industrial personnel is a serious responsibility. Therefore, at no time should laxness be permitted or unofficially condoned, when personal protective equipment is involved.

Periodically the press and trade journals report cases of deaths due to (a) lack of proper and adequate respiratory protective equipment, (b) lack of proper supervisory au-



thority and (c) lack of personalized instruction relative to the potential hazards involved.

All equipment necessary for the proper functioning of full-face or respirator-type air supplied masks, such as hand, electric or gasoline driven air compressor units, hose and appurtenances, should be thoroughly checked periodically. Such inspections should be recorded on a card as previously mentioned, or on a special supervisor's form which may be developed for the purpose.

Nothing must be left to chance. Protection against mechanical and human failure is a problem which creates its own idiosyncracies which in turn are dependent upon the type of exposure, employee characteristics, supervisory activity and top management interest.

#### Dermatitis Control

Practically everyone subject to skin contact with the varied array of chemicals used by industry today, is exposed to the onset of dermatitis in some form or other, either immediately or in a delayed reaction.

A careful check of operations where cases of dermatitis have developed may indicate that contact with the causative offender was not possible. Too many non-industrial cases of dermatitis are characterized as industrial if any irritant or poisonous material is used in the plant. This is becoming quite serious in some industries. The services of an experienced dermatologist is the only answer to this problem.

There are industries or operations where the hands must come into intimate contact with materials being processed such as in bleaching or dyeing plants, machine shop operations, maintenance and repair of machinery in chemical processing and manufacturing plants, electrical repair and maintenance, plastics, rubber, oil, insecticides, perfume, textile and a host of others too numerous to mention.

The estimated cost of dermatitis to industry in this country is about \$100 million per year. Only in some instances is a case of dermatitis of such a nature as to incapacitate an individual for an extensive period. The onset may cause



★The sparks . . . those tiny tracers of flame. You've seen sparks hundreds of times on welding operations all through the plant. But don't ever forget that those sparks are flames . . . flames capable of igniting damaging fires.

Where this man works plant protection is needed . . . protection in the form of a spark and flame-resistant flexible curtain that is as portable as his tools.

We manufacture such a curtain and would like to have the opportunity to tell you about it. Upon receipt of your letter we will send immediately full information on how modern industry meets the hazards of sparks.

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*The bulletin board that lasts and lasts*

Insist on Dav-Son genuine self-sealing cork—tack holes disappear. Natural finish hardwood frames with mitered, glued corners add to long life of Dav-Son bulletin boards. Sizes from 12x18 and larger, with or without locking glass doors. \$4.15 up. Also with metal frames for inside or outside use.



Dav-Son Safety Director with color, light, motion, easy changeable letters for up-to-minute messages, peak attention. \$39.75, letters incl.

A Dav-Son board for every purpose. Over 100 different sizes and styles to choose from.

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If your dealer doesn't have the Dav-Son board you need, write direct.

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the individual to become sensitive to a particular type or group of solvents. A recent case in question was brought to our attention where an electrician had been receiving compensation for "zinc chromate poisoning."

In all probability, the solvent used in the zinc chromate solution was the causative agent. The individual had become so sensitized that when he walked through an

area where zinc chromate was used, a rash appeared on his face and hands.

The only effective barriers against skin contact are (a) prevent operators hands and arms from coming in contact with chemicals and (b) require that when necessary, proper glove protection be provided and used. All types of rubber gloves cause excessive sweating which becomes an annoyance and nuisance to the operator.

Further, small cuts or abrasions in the gloves allow liquids and fine dust particles to penetrate inside the glove and deposit on hands and arms.

There are cloth gloves available, impregnated or coated with plastic or neoprene, short or gauntlet type, which are providing effective barrier protection, where this type of equipment may be advantageously used. Some gloves are provided with cuffs at the upper or open end so that solvents may not run down the outside of the glove and then continue on the inside of the glove. The interior of a glove wet with a solvent or irritant dust is usually worse than no glove at all, since the glove presents a false sense of protection.

When gloves cannot be worn, the use of protective applications may be attempted. Hand creams, however, cannot be used where contact may cause injury to the materials handled.

So we come to the last line of defense, effective and continuous personal hygiene. This means easily available washing facilities, plenty of warm water, liquid, solid or powdered types of soap containing lanolin without harsh abrasives which may act as sharp edged tools on the skin. The pH or acid-alkali balance of any soap used should be in the neutral range of 7 or 7.5.

### Employees Get Mementos Of World Safety Record

EACH EMPLOYEE at Akron Plant 2 of The Firestone Tire & Rubber Company has received a useful token of appreciation from the company for playing a part in setting the world safety record for the rubber industry.

The gift is a key chain with a medallion reading: "Presented to the men and women of Plant 2 for setting a world safety record in the rubber industry, 1952-1953." The chains were presented to employees in all departments by their foremen.

The gift of key chains to 3,100 employees followed the presentation of a special Award of Honor to Plant 2 from the National Safety Council in recognition of the world safety record. J. E. Trainer, vice-president in charge



## DUST is no joke!



### ELIMINATE ABRASIVE DUSTS AND IMPROVE WORKING CONDITIONS WITH TORIT DUST COLLECTORS

Here a Torit 19-FB Dust Collector is eliminating bad dust and lint conditions connected with the polishing of rock drill bits. Wheel hoods, too, are Torit designed.

Note how completely the wheels are hooded, yet there is no interference with operations. The powerful suction of the Torit Dust Collector insures that no dust gets in the operator's eyes.

With Torit Dust Collectors you see what's going on. The compact units take up little room. They set close to machines to minimize piping and reduce friction losses.

To see the end of dust in your plant, call on Torit. Standard model Torit Dust Collectors fit most operations, and special adaptations can be quickly fabricated. Just write to:

see our catalog in  
**MACHINE TOOL CATALOGS**  
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## TORIT



Torit Dust Collectors are available in both cabinet and cyclone types, in sizes ranging up to 5 H. P. capacity.

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Now in Operation**

## CLEAR SNOW UP TO 2 FT. DEEP FROM DRIVEWAYS AND ROADS



Fits any car, jeep, truck. Attached in 2 minutes, without tools. Clears snow 24" deep and full width of car. Rigidly re-enforced 1/2" steel blades. Lightweight.

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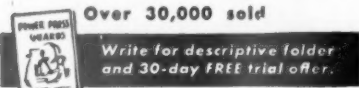
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of production, presented the award plaque to W. R. Clark, Plant 2 Manager.

The award was for operating 6,542,463 hours with a disabling injury between June 24, 1952, and June 12, 1953.

## Association Awards

—From page 64

Lauderers issues a compact eight-page booklet outlining a basic safety program for their small company members.

## Cooperation Is a Key

Cooperation with safety agencies is a key feature of many programs. The Pacific Coast Association of Pulp and Paper Manufacturers is proud of the fact that all of its members are members of the National Safety Council. Most of the associations have urged their members to participate actively in the work of the National Safety Council and its local chapters. The American Petroleum Institute is one of the associations which has done an outstanding job of collecting, analyzing and disseminating statistical data; in fact the National Safety Council uses its reports as a basis for information on the petroleum industry. The Council has repeatedly referred safety-minded associations to the "veterans" such as the U. S. Brewers Foundation, for firsthand information on "how to do it." The cooperation between the associations and the local Council or National Safety Council is most gratifying.

The Council's Small Business and Associations Committee is indebted to the association staffs and committees which contributed so much to our knowledge of accident prevention. Such information can be used many times over in helping other associations reduce accidents in their industry.

## Announce Winners of Safety Scholarships

THREE STUDENTS at New York University's Center for Safety Education are the first winners of study grants provided by the W. Graham Cole Scholarship Fund.

Dr. Herbert J. Stack, director of the Center, has announced that scholarships from the fund—estab-

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by coal miners  
for coal miners*

# NEW HARD BOILED Coal Miner's Cap



*This is the cap that has been acclaimed by many in the industry as the greatest development in Coal Caps in years.*

## Designed for GREATEST PROTECTION!

Built of rugged light weight Fiberglas. Surpasses all standard safety tests, and is approved by the state of Pennsylvania.

Deep groove in crown secures lamp cable, gives more headspace, acts like a girder for extra strength. The flared raintrough edge, all around the hat, protects ears from being nicked and keeps water from running down a man's back. Fiberglas is flame resistant and passes dielectric tests eliminating all fear of electrical hazards.

## Designed for "FELT HAT" COMFORT!

Free floating hammock suspension guarantees a perfect fit always with plenty of room for air circulation. Headband size can be adjusted in just a few seconds or when needed completely changed with inexpensive leather or leatherette headbands.

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## is DOCKSON GOGGLES

BE SAFE against sparks, dust particles, chemical splash and fumes, glare and injurious rays with DOCKSON GOGGLES in more than 20 models and a full line of modern lenses for all hazards.



BE COMFORTABLE with smooth-sitting DOCKSON GOGGLES. Excess weight is engineered out.



BE ECONOMICAL, get longer use from DOCKSON GOGGLES. "BUILT FOR BETTER SERVICE".



THERE IS A DOCKSON DISTRIBUTOR NEAR YOU—Let us send you his name and our complete catalog of DOCKSON HEAD AND EYE PROTECTION.



lished last June in honor of the late Mr. Cole who was associated with the Metropolitan Insurance Company—have been presented to:

John E. Kelly, Jamaica, L. I., who is in the safety administration department at American Airlines, LaGuardia Field;

Vincent D. Kracum, Jackson Heights, L. I., chief therapist in inhalation at the therapy department in St. Vincent's Hospital, New York City; and

Victor B. Ranieri, Bronx, N. Y., safety engineer for the Liberty Mutual Insurance Company.

The awards cover tuition for courses offered in the Center's evening safety training program.

Selection of the winners was made by the Center, following recommendations by a committee composed of representatives from the board of directors of the Greater New York Safety Council, the Metropolitan Chapter of the American Society of Safety Engineers, the commercial vehicle section of the Greater New York Safety Council, the Metropolitan Life Insurance Company, and NYU.

In all, 10 scholarships are to be awarded by the Fund to students who show promise of outstanding contributions to the safety field.

### Out of the Gray

—From page 37

First we must think of the proper brightness ratio between the job, the immediate surroundings, and the general field of vision. Experts in illumination agree the brightness ratio within the field of vision must be confined to narrow limits for good seeing comfort. It has been established that a ratio of one to three or less is desirable. Some will tolerate one to ten if the level of illumination is very high. For our problem the one to three is considered to be the best.

Let's consider the machine. By painting the machine body a color that is known to be easy on the eye, we take advantage of chromatic aberration within the eye. This known color is in the green color family. By selecting a grayed yellow green with a light reflection factor of about 25 per

## SOLVENT SAFETY OR SAFETY SOLVENT

*Solvent Safety* means lowered loss of men and equipment. The proper selection of solvents tailored to the job and the conditions under which that job must be done is a requisite of *Solvent Safety*.

*Solvent Safety* calls for product design experience and the know-how in industrial process applications.

12 years of product origination and a trained National Engineering Staff are at your disposal.

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Solvents Engineered for Safety

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Sales Offices: Pittsburgh, Pa., Los Angeles, Calif. Warehouses: Pittsburgh, Pa., Boston, Mass., Detroit, Mich., Kansas City, Mo.

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cent, we provide an easy-on-the-eye surrounding to the job. The focal wall in this case can also be painted with a color in the yellow green family. However, we increase the saturation and brightness in comparison to the machine color. For this wall we will select a color we call Seafoam Green Light with a light reflection factor of 70 per cent. Our brightness ratio between the job and focal wall is now 25 to 70 or less than 1 to 3. Also we are increasing the amount of reflected light from the machines. This provides a better uniformity of light within the entire environment.

Under these conditions we eliminate the extreme eye adjustment demanded by the gray and white color environment. For the worker we have added eye comfort and removed the cause of nervous tension. Absenteeism is reduced to a minimum as work conditions are more pleasant for the worker. Also safety has been furthered since the adverse working conditions are eliminated.

Other color facts may also be employed to further improve the working conditions and make the operator's job easier and more comfortable.

For example: The operator performing our milling task must concentrate at the point where the cutting tool is in contact with the material being fabricated. In order to hold the worker's attention at this point, with minimum eye fatigue and discomfort, we employ the rules of color contrast. We paint that part of the machine holding the cutting tool a focal color. In our case the color may be focal ivory or focal buff. Both colors afford good color contrast between the material and machine color. Thinking of brightness contrast again, we consider the various light-reflecting surfaces. Focal ivory reflects 74 per cent of the light, and focal buff 55 per cent in contrast to the machine body color of 25 per cent. Again we have good brightness ratios and the color contrast holds the operator's attention to the point of contact without discomfort or eye fatigue.

Going a step further in our color contrast principles, the adjustment wheels or levers constantly in use during the milling operation can be made easier to see and find without concentrating on the task. A warm color, such as focal beige, will provide contrast with the immediate surrounding area. Also by using an alerting color, such as focal orange, on the emergency stop button we improve safety by using color as a tool.

Crushing and cutting hazards contribute a good portion of normal plant accidents. Machines, or operations responsible for accidents of this type, can be effectively color coded to attract and hold attention to the danger.

In some plants fire extinguisher locations are not pronounced simply because the red bands, around posts, for example, blend in with other natural lines and planes.

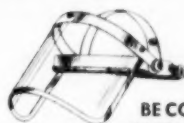
The Safety Division of the Department of Labor recently expressed interest in the identification of various types of fire extinguishers used by industry today. They asked if some color code

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**BE COMFORTABLE**—reduced weight, ample ventilation, special stay-put spring pivots, adjustable headgear are important in DOCKSON FACE SHIELDS.



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## USE **Tamms** FULLER'S EARTH

Adds greatly to the safety of your shop • Provides safe non-slip footing • Absorbs oil and grease • Lessens fire hazard because, unlike saw dust or wood shavings, it is non-inflammable • Every shop needs this low cost safety aid.

A trial will convince you. Send for **FREE SAMPLE**.

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## WARN FOR SAFETY...



Type 15100 Gyalite for low voltage duty. With rotating glass reflector.

### with high intensity rotating light beams

The Gyalite projects a beam which rotates with a wide, circular sweeping action...every eye within range of danger sees and PIN-POINTS the safety hazard instantly!

Compact and reliable Gyalites solve your warning signal problem when noise levels are too high for sound signals or where multiplicity of sound signals would confuse. Gyalites install easily on overhead cranes and other hazardous moving equipment. Portable Gyalites protect ground crews at hazardous locations. Automatic control by time switch, pressure switch, float switch or electric eye will safeguard equipment and personnel in innumerable plant operations.

Write now for Bulletin No. 5015

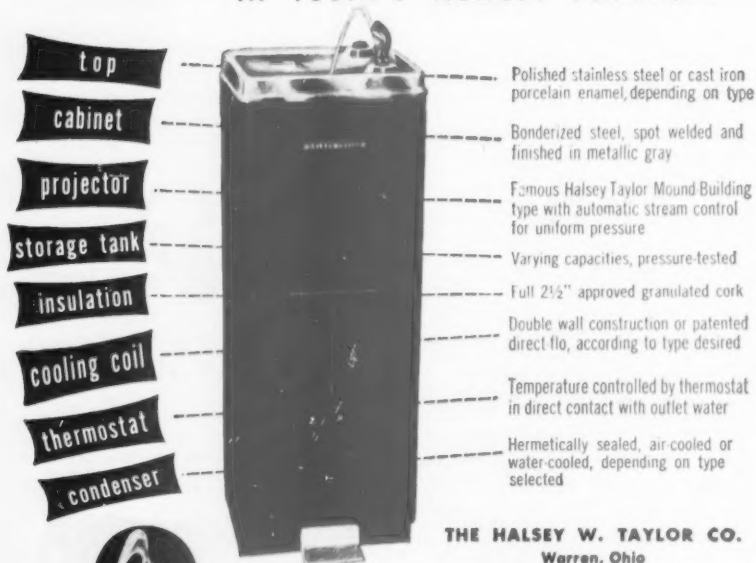


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F-28



could be applied that would tell the user the type of fire each extinguisher was designed to combat.

Unfortunately fire in most instances develops panic within the individual. Under the circumstances, we do not think color codes forceful enough to insure proper equipment selection. The Committee agreed nothing should be left to chance. Identify each piece of equipment by stenciling on the location panel and on the equipment itself, the type of fire it is designed to combat.

It is common practice, in some plants, to completely paint the soda-acid type extinguisher a deep red. An additional hazard is created when the welded seam, common to most extinguishers of this type, is covered by paint. Paint may camouflage a weakness in the seam, and when it is put into use, inside pressure might cause an explosion. Cases of this type are on record.

Perhaps the two most important factors related to color codes for the identification of safety hazards are: education of all personnel as to the proper meaning, and limiting use of the code to the safety program. Various methods have been used very successfully over the years. Some time ago a unique approach to the education problem came to my attention. For want of a better descriptive term, I will call it the indirect psychological approach.

A series of three letters were used. Each one was sent to the worker's home, addressed to the wife, husband, or mother. The first letter pointed out the importance of safety on the job in relationship to the security of the people concerned. The second contained a detailed explanation of the plant's standard safety color code. The third pointed out the importance of the worker knowing the exact meaning of the code and solicited help from the home in seeing that the code was well-understood.

That unimportant-looking can of paint in the maintenance paint shop contains two important values. It can provide color, for beauty and benefits to people who use it, and it provides protection against the destructive forces of corrosion.

## Fork Trucks

—From page 33

under consideration meets performance requirements.

### How to Use Data

An understanding of the factors involved in truck stability will serve a dual purpose. First, it will cause the purchaser to check for maximum loads and tiering height so that he can provide accurate information to the truck manufacturer.

Second, it will enable him to check and compare specifications of competitive trucks so as to be sure not to decide in favor of lower cost at the sacrifice of adequate stability.

An analysis of truck stability factors also makes clear the fact that static stability remains constant regardless of how high the load is lifted when the truck is on a level floor and the mast is in a vertical position. Not one inch-pound is added to the overturning moment, nor is one pound subtracted from the trail weight, when loads are lifted straight up. The very slight forward shift in load center due to mast deflection and clearance in the mating mast parts is readily compensated for by tilting the mast.

However, there are certain conditions that throw the mast out of its true vertical position: for example, (1) depression or grade in floor surface, (2) deflection of rear springs, and (3) any "whipping" of uprights or shifting of bearings while under load. Such factors must also be taken into consideration when computing fork truck stability.

### Pointers for Operators

When you have a heavy load high in the air, think of yourself as a professional juggler. If you could sense the balance of your load just as skillfully as he does, you could probably go three times higher in your stacking. How can these principles be applied?

First, never tilt the mast forward when carrying a load in the elevated position. The point of support must be kept under the load for stability.

Second, never tilt the mast backwards beyond the maximum angle

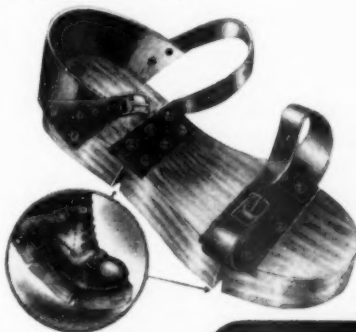


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SMOOTHLY finished WOOD SOLE

with AIRFOAM insole acts as splint. Keeps injured foot immobile. Keeps a man on the job despite injuries. Fits over bandages. Easily stocked—no lefts—no rights. Also available without foot guard.

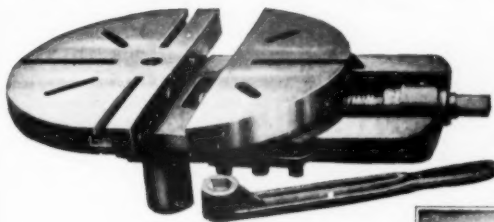
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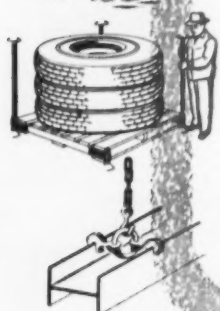
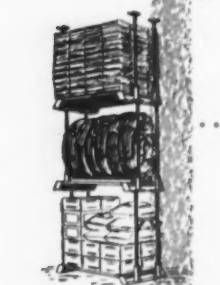
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ORDER**

of tilt. Doing this allows the center of gravity to go too far toward the rear, and you lose side stability.

The right compromise is to tilt backward the distance of a foot or so, or at least far enough backwards so that the deflection of tires, springs, uprights, and other parts of the machine will not allow the back edge of the load to be farther forward than the front face of the drive tires. The juggler's idea is still in force here. You have to keep the load over the point of principal support, the front wheels.

Avoid making a steering turn with the load in the full elevated position. If you don't, the truck is liable to turn over sideways. If possible make your turns in the aisle with the load at intermediate height.

Last, don't accelerate too fast or slam on the brakes too quick when the load is high. Either operation may cause the truck to overturn. Whenever possible, avoid carrying loads at elevated heights.

## Industrial Health

From page 60

addition to the dermatitis were perforated nasal septa which seems to occur especially among people with deviations of the nasal septum; inflammation of the pharynx and of the nasal turbinates occasionally; conjunctivitis was seen occasionally as complication of dermatitis of the face and eyelids.

Pigmentation and arsenical tumors were not seen among men who had worked with arsenic trioxide for 30 years. Garlic odor of the breath was also not observed unless the arsenic trioxide was contaminated with traces of tellurium.

Because it is known that cigarette smoke contains considerable amount of arsenic, a study was made of possible variation in arsenic excretion with variation in smoking habits. There was no correlation. There was no significant difference between the excretion among a group of non-smokers and among a group who smoked 20 or more cigarettes daily.





More Efficient,  
Cheerful and Safer  
Working Conditions with...

**Pittsburgh  
COLOR DYNAMICS®**

Functional use of  
colors lessens eye fatigue,  
improves productivity,  
boosts morale and  
reduces accident hazards  
in new \$3,000,000  
Warner & Swasey plant.

COLOR DYNAMICS throughout the entire new Warner & Swasey plant in New Philadelphia, Ohio, gives workers increased visibility, greater safety and a psychological incentive for stepping up their activity—all of which result in better and greater production.

● An excellent example of the plant environment which Pittsburgh COLOR DYNAMICS provides is the new \$3,000,000 plant of The Warner & Swasey Company recently opened in New Philadelphia, Ohio.

● In this new plant Warner & Swasey manufactures parts for turret lathes, automatic screw and tapping machines, textile machinery and grading equipment. The entire structure was painted according to COLOR DYNAMICS.

● The reasons for the choice of COLOR DYNAMICS are best expressed by Walter K. Bailey, vice-president in charge of manufacturing:

● "We chose to use color functionally in order to create an environment that would be pleasing, cheerful and, at the

same time, improve the productivity of our operators. We selected colors that would increase visibility without causing eye fatigue.

● "We also painted recreation and rest areas in colors that would provide a welcome change of pace and return the workers to their jobs feeling alert and refreshed.

● "Above all, we wanted to create a work place of which the entire community could be proud. How well we succeeded is best shown by the enthusiastic comments when we held 'open house' at the time of our opening. This was further confirmed by the flood of applications from men who wanted to work in these surroundings. From every standpoint, we believe COLOR DYNAMICS is an investment that will pay off for years to come."

#### FREE — Color Engineering Study of Your Plant!

● Why not test the practical value of COLOR DYNAMICS in your plant — on a machine or two or in a whole department? Send for our free book which explains how you can use this modern painting system simply and easily.

● Better still, call your nearest Pittsburgh Plate Glass Company branch and ask to have a representative give you a detailed color engineering study of your plant, or any part of it, without cost or obligation. Or mail coupon at right.

#### Send For a Copy of This Book

Pittsburgh Plate Glass Co., Paint Div.  
Department MSN-113, Pittsburgh 22, Pa.

☐ Please send me a FREE copy of your booklet, "Color Dynamics."  
☐ Please have representative call for Color Dynamics Survey without obligation on our part.

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_  
County \_\_\_\_\_ State \_\_\_\_\_



**PITTSBURGH PAINTS**  
PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

Circle 1053 Pittsburgh Plate Glass Co., Pittsburgh, Pa.

# For a Successful Poster Program



JUMBO POSTER for DECEMBER, '53

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".

THE 1953 Poster Directory contains miniatures of 756 posters — top-notch selections on a great variety of subjects. Extra copies available at 50 cents each—write Membership Dept., N.S.C.

Posters miniaturized in these pages are new — shown here for the first time.

Those posters illustrated in one color on the following two pages are actually printed in two or more colors.



0058-C

25x38



NATIONAL SAFETY COUNCIL

T-0015-B

17x23



NATIONAL SAFETY COUNCIL

9888-A

8 1/2 x 11 1/2

The two new posters (above) are indicative of the other two color posters — shown in one color on the following pages and in the 1953 Poster Directory.

The new four-color poster (above) is illustrative of the 72 four-color posters shown in the 1953 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors  
(Available only in sizes indicated)



0039-A 8½x11½



0001-A 8½x11½



0042-A 8½x11½



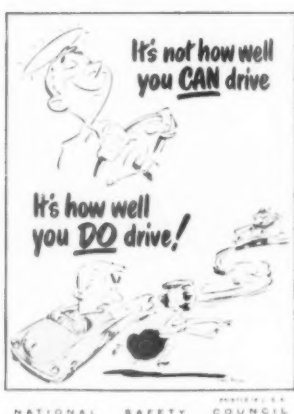
0033-B 17x23



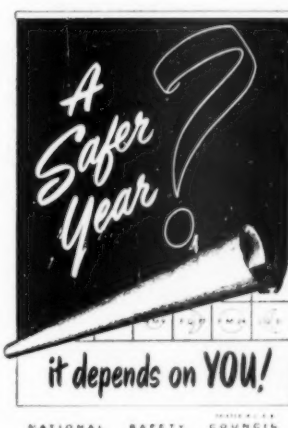
0005-A 8½x11½



9923-B 17x23



9940-B 17x23



0046-A 8½x11½



0037-B 17x23

Electrotypes of payroll inserts can be furnished in all poster illustrations showed above.

Posters below are printed in two or more colors  
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL

0034-A 8½x11½



NATIONAL SAFETY COUNCIL

9897-A 8½x11½



NATIONAL SAFETY COUNCIL

0030-A 8½x11½



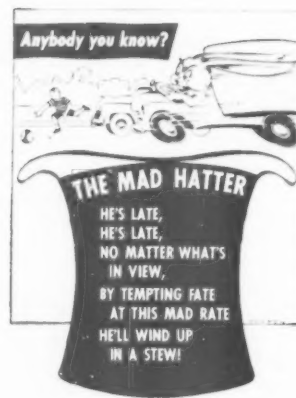
NATIONAL SAFETY COUNCIL

0044-A 8½x11½



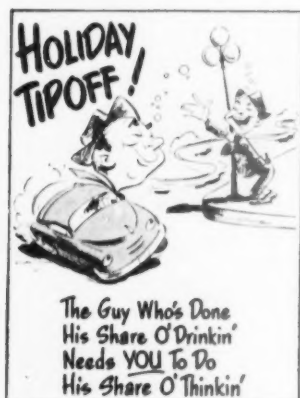
NATIONAL SAFETY COUNCIL

V-0048-A 8½x11½



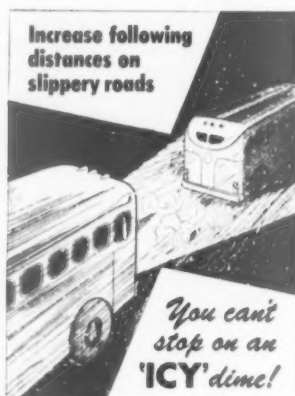
NATIONAL SAFETY COUNCIL

V-0049-A 8½x11½



NATIONAL SAFETY COUNCIL

V-0051-A 8½x11½



NATIONAL SAFETY COUNCIL

V-0050-A 8½x11½



NATIONAL SAFETY COUNCIL

V-0055-B 17x23

Electrotypes of payroll inserts can be furnished in all poster illustrations showed above.



## Workers Help Design Heavy-Duty Glove



SPLINTER INJURIES have long been considered a "lumberman's burden."

The men and management of Weyerhaeuser Timber Company's Everett lumber division realized the number of splinter cases sustained by mill personnel was a mutual problem—and a challenge. Working together, they have come up with a solution to these minor, but painful, injuries, which result in much lost time through soreness or infection.

"The solution," says Keene Strobel, plant safety engineer, "had to lie in a glove that would afford adequate hand protection."

Strobel talked to green-chain pullers, planing mill off-bearers, unstackers and other employees who handle lumber constantly during their day's work. Combing the catalogs of a dozen manufacturers, he selected 50 pairs of sample gloves made of plastic, cloth, leather, and even metal threads, to try out in the mill. The trouble was finally tracked down to the thumb seams, which usually opened first under the strain.

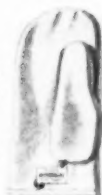
The first shipment of the new gloves arrived in Everett a few months ago and Strobel distributed them among employees for testing.

Like the other gloves offered for sale locally, the "X" model had a leather face, wrist guard and thumb, and a canvas back. Sold at cost (75 cents), they were

**No. 200  
Asbestos Gloves**  
Lined or unlined. Plain or leather reinforced. 11, 14, 23" lengths.



**No. 250  
Asbestos Mitts**  
Reversible, worn either hand giving double service. Lined or unlined. 11, 14, 23" lengths.



**No. 225  
Leather Reinforced  
Asbestos Gloves**  
Leather palm, fingers, thumb. 11, 14, 23" lengths.

**No. 280  
Leather Reinforced  
Asbestos Mitts**  
Palm, back and thumb, reinforced with heat resistant leather. 11, 14, 23" lengths.



## For Safety Get Quality Asbestos Gloves

Only quality can put full safety into asbestos gloves. Steel-Grip asbestos safety gloves are quality throughout. The quality starts with the asbestos cloth . . . Underwriters' Grade 2½ lb. per square yard. You find quality in the design . . . seamless one piece construction from tip to top. No seams at wrist or working edges to pull out or burn just when protection is most needed on the job. Double sewn throughout. Full cut for cool, comfortable fit.

And the manufacture is of the quality that made Industrial Gloves Company the leader for 43 years. Gloves and mittens, both plain and leather reinforced, your choice of lined or unlined, made in standard lengths of 11", 14", and 23". Special lengths to your requirement. Knitted cotton lining, 8 ounce weight, is our standard lining. Knitted linings allow quick dissipation of heat. Special linings available. A complete line of asbestos safeguards for every job hazard. Tell us what you need. Catalog free.

### INDUSTRIAL GLOVES COMPANY

a corporation

1700 Garfield Street,  
Danville, Ill.

(In Canada:  
Safety Supply Co., Toronto)



To be sure of the Genuine

## BE FRESH..STAY FRESH

wear a

### DUPOR No. 46

**U.S.B. of M. Approved  
Respirator for Type A  
and Lead Dusts**

Sample sent \$3<sup>25</sup> pp



More than 46 sq. in. filtration area. Soft rubber face mask.

U.S.B. of M. Approval BM-2124 for LEAD DUSTS and ALL other toxic or poisonous dusts as well as Type A (Pneumoconiosis or Silicosis producing dusts). Controlled breathing . . . patented check valves and bulb type exhalation valve guard against re-breathing stale air.

## H. S. COVER, South Bend, Ind.

**WANT MORE EFFICIENT—  
LONGER LASTING STEEL STAMPS?**



Knurled sides for positive grip—patented design provides perfect balance and deeper impressions. Especially recommended for toughest jobs on steel castings, cylinders, tool steel, etc. All sizes available  $\frac{1}{16}$ " to 1" characters.

**Mecco SAFETY MARKING TOOLS**  
**M.E. CUNNINGHAM CO.**  
1053 CHATEAU STREET, PITTSBURGH 33, PA.

cheap insurance against the tiny wooden bayonets. After 50 days, the new gloves were pronounced a success. Several hundred pairs were snapped up by employees in a few weeks as the word spread.

There are still features to be incorporated; the gloves need a wider leather face to protect the edge of the wearer's palm on the little finger side, but that is being solved with a minor design modification.

### Green Cross News

—From page 48

the Chapter. At the suggestion of the new Chapter executive secretary, Al Wood, the cake, which had been donated for the occasion by a local bakery, was presented to the Children's Ward at the County Hospital. It was enjoyed to the last bite by the many youngsters in the children's wing. The formal presentation was made by Charles B. Parbury, chapter treasurer and board member.

### Management Safety Course

The annual Managements' Accident Prevention Training Course, sponsored by the Industrial Safety Division of the Western Pennsylvania Safety Council, started off with a fine attendance on September 29. Two other sessions were scheduled for October 6 and 13. Three sectional meetings preceded the general program at each of the sessions. A well planned program of interesting subjects and speakers was worked out under the able direction of General Chairman Myron L. Miller, supervisor of safety, Westinghouse Electric and his Management's Course committee. The local ASSE, the American Material Handling Society, the American Industrial Hygiene Association (Pittsburgh Section) and the Visual Aids Committee of the Safety Council co-operated in the project. The sessions were held in Soldiers and Sailors Memorial Hall.

### L. A. Supervisor Series

The Greater Los Angeles Chapter, NSC, recently launched a ten-week series of "Safety for Supervisors" meeting at East Los Angeles Junior College. A. M. Noyes, safety engineer for the Chapter, is conducting the series.

Hold an **eel** with  
**Super-Safe Grip** **PIONEER Stanzoils®**



N-35 light weight  
all-neoprene 10 1/2" length.  
Snug curved fingers  
Super-Safe grip surface  
holds oily, slippery  
objects as if dry.

Non-slip grip on Stanzoils acts like sand on ice. Handles wet, oily objects as if dry. Speeds work—cuts accidents.

PIONEER Processed milled neoprene gives extraordinary service in contact with oils, acids, caustics and solvents. Milled neoprene has higher tensile, greater tear resistance than any other oil-proof rubber.

Only a liquid-tight glove gives positive physical protection from conditions causing dermatitis.

32 PIONEER Stanzoil styles, weights, sizes and colors. Send for Stanzoil catalog—shows quickly how to pick the best, most economical glove for each job.

**The PIONEER Rubber Company**

237 Tiffin Road  
Willard, Ohio



QUALITY GLOVES FOR 35 YEARS

which is planned to give plant supervisors a basic knowledge of accident causes. Classes are held each Thursday evening from 7:00 to 9:00 and subjects include accident analysis, the repeater problem, training the new employee, follow-up in supervision and other pertinent themes. The local ASSE group, the Merchants and Manufacturers' Association, the National Association of Foremen, and the Southern California Industrial Safety Society are cooperating with the Chapter.

### Death Trap Round-Up

As a precaution against repetition of the ice box disasters which in August claimed the lives of 11 children, the Pasadena Safety Council, a chapter of NSC, in cooperation with the Refrigeration Service Engineers Society of San Gabriel Valley, rounded up 500 old ice boxes and refrigerators and rendered them harmless. Fifty of these, picked up in Pasadena, were disposed of at the city rubbish yard. Manager Lester G. Bock of the Safety Council and John H. Clark of the Refrigeration Society spearheaded the war on discarded death traps. The youngsters lost their lives through suffocation while locked in the refrigerators during play.

### Hot Rod Conversion

—From page 37

greeted the kids with these words. "Hey, you mugs. Look. Here's a couple of beat-up salesmen's cars that that mechanic down at Jackson-Barnes said you guys could raid for parts. And Harry's goin' to auction off that job of his tonight, with the proceeds going to pay expenses for a big day of time trials at the fair grounds November 1. How about that?"

I had figured it might be necessary to make a speech at a high school assembly warning the kids. But it wasn't. Three days before Hallowe'en a delegation of the hot rodders called on Harry and handed him a package. "We just found out some of our guys got out of hand a few weeks ago, and got over your fence and swiped this stuff. We didn't know you guys then, an' you know how it is. We—that is they figured a big outfit like Jackson-Barnes could

## Stop Accidents! Prevent Movement of Parked Trucks, Trailers!



WITH **CASTEEL**  
*Safety Retractable*  
**WHEEL CHOCKS**

**Holds Any Vehicle Safely . . . Releases Instantly . . . Can't Wedge or Move**

Here—at last—is a retractable wheel chock, capable of holding any vehicle or load safely yet releases instantly regardless of how tight it's wedged under the tire. Casteel Safety Retractable Wheel Chocks eliminate dock accidents during loading with heavy fork trucks by keeping the unit securely held against the dock—preventing forward movement of the vehicle. Casteel Wheel Chock's retractable feature saves time when chock is removed . . . prevents dock tie-ups, increases operating efficiency, encourages chock use and promotes safety and safety consciousness. Made of alloy steel, (80,000 lb. per sq. in. tensile strength), with a wide curved bearing plate, Casteel Safety Retractable Wheel Chocks are your best insurance against costly accidents. Chock Holder which may be welded or bolted to dock or truck available. Write for prices and illustrated literature.



**Casteel Safety Wheel Chock in open position. Note wide bearing on tire.**



**Step on the handle and Chock moves backward away from tire to closed position.**



**Eliminate accidents like this . . .**



**By using Casteel Safety Retractable Wheel Chocks here**

**CALUMET STEEL CASTINGS CORP.**  
1646 Summer Street Hammond, Indiana

*New*  
**DRY TAMP**  
*PERMAMIX* Floor Patch

**Don't stop traffic to repair floors—use Permamix, the new all-temperature DRY TAMP floor patch.**



**DRY TAMP MEANS SPEED •** No sticky mass to dig out of the drum or to handle • Permamix dry pours • sets instantly • feather edges perfectly • no production delays • non-skid surface.



**ALL TEMPERATURE •** Won't freeze • can be stored or used in any temperature • will store indefinitely • a stock room item • will not "set" in drum whether open or covered. Mistakes just can't happen. Tamp in place and traffic rolls.



**CUTS MAINTENANCE COSTS** on concrete, brick, tile or asphalt floors • no special equipment or skill needed • a one man job • comes in durable 50 lb. net wt. fibre drums • solve your floor patching problems for good.

Write for Details Now!

**PERMAMIX CORPORATION**

155 W. WACKER DRIVE

CHICAGO 1, ILLINOIS

## Group of RUEMELIN Fume Collectors Keeps Shop Clear of Welding Fumes



This well ventilated welding department is typical of hundreds of similar installations. Welding operators appreciate smoke and gas-free atmosphere. Thousands in service. Many repeat orders. Collecting fumes AT THE SOURCE with local exhaust hoods has proven most practical in operation. It is particularly helpful in winter months when doors and windows are closed. Write for Bulletin 37-D describing all types of Ruemelin Welding Fume Collectors.

### RUEMELIN MFG. CO.

MFES. & ENGRS. • SAND BLAST & DUST COLLECTING EQUIPMENT  
3885 NORTH PALMER STREET • MILWAUKEE 12, WISCONSIN, U. S. A.

## MARSH & McLENNAN

INCORPORATED

### Insurance Brokers

CONSULTING ACTUARIES

AVERAGE ADJUSTERS

Chicago New York San Francisco Minneapolis Detroit Boston Los Angeles  
Toronto Pittsburgh Seattle Vancouver St. Louis Indianapolis Montreal  
St. Paul Duluth Portland Buffalo Atlanta Calgary Washington  
Tulsa New Orleans Phoenix Milwaukee Cleveland Havana London

spare some things for some kids who are broke. We see it different now. Here's the stuff—all of it we could get back."

And yesterday, at the time trials, Johnny Last was the official starter. During a lull, he turned to me and said, "Guess I figured wrong. I thought we needed a youth center, but you had a better answer."

I looked at him. "Johnny, you had the right answer, or part of it. But it couldn't do the job quickly enough for this year. You go ahead, and I think you can count on Jackson-Barnes for a good contribution. But for the quick job, it was Mike's or nothing. You gave us that tip, and we're grateful."

"I didn't mean to give it to you," he said. "I didn't want to cause any trouble."

"You didn't," I said.

He thought a minute. "So this is safety engineering," he said.

I grinned at him and replied, "This, and practically anything else under the sun."

### Small Business

—From page 44

director of the Manufacturers Association of Montgomery County, who presided, and by your reporter who explained the direct and indirect values of accident prevention. About one-fourth of the audience of approximately 125 came from small companies; the balance represented agencies which were in a position to help small companies.

The outstanding feature of this session was a talk by the controller of the Corson Company who explained how accident rates and costs have been sharply reduced in their quarry of 165 employees. Over a five-year period of time they saved more than \$6,500 in insurance costs alone and reaped the bonus of improved public and employee relations. The safety campaign was also helpful in boosting production from 1,000 tons a day to 6,000 tons a day.

### Association Fatality Reports

The average small company rarely experiences a fatality and yet, in the aggregate, fatalities and permanent disabilities are sapping the resources of small business. The trade association is in an excellent position to offer an ex-



change of information on serious accidents and means of preventing them.

The American Paper and Pulp Association, New York, is one of the most recent subscribers to this approach. In response to their questionnaires, member companies are submitting valuable information on the causes and prevention of fatal and permanent disability injuries. The names of the injured employee and the company are, of course, deleted but any information that would prove helpful in preventing future occurrences are included.

An interesting sidelight—one that is very encouraging to us on the staff—is the mention of our detail sheets as reference material suitable for building guards. It is specific proof that our materials have a direct application. Our goal is to get them used before the accident, not after.

#### AGA Improves

The Small Business Campaign of the American Gas Association is also paying off. The June 1953 issue of their *Monthly* shows that their 1952 accident frequency rate is 8.4 per cent lower than the 1951 rate. The severity rate was 22.1 per cent better.

This reduction marks the fifth successive yearly decline of the intensive AGA safety program.

#### Cases for Comment

—From page 56

restaurant. On their way to the restaurant their car collided with another car and all four of these men received some injuries. One of the men lost time from work for a few days because of the cuts and bruises he received.

The Committee of Judges decided that these injuries should not be included in the company's industrial injury rates.

Injuries are not counted during normal travel to or from work, nor when an employee leaves the plant to go out to eat. The fact the four men were planning on going to a meeting later in the evening does not qualify them for the special rules of 2.1.5 of the Code since they have a regularly established place of employment. The case comes under rule 2.1.1, and should not be counted.

National Safety News, November, 1953

**The New**  
**ALBINA**

# Circular!

## MECHANICAL STIRRUP



**Ideal for:** Grain Elevators, Tanks, Storage Bins, Etc.

#### ALUMINUM DIAMOND PLATE DECK PLATFORM

Platform as shown may be used as a 6, 16, 22 or 28-ft. swing stage. Platform consists of two 6-ft. and one 16-ft. sections. Can be used as a swing stage, single stirrup or basket. Air or electric operated.

Safety approved by  
State, Municipal,  
Corporation Safety  
Boards and  
Certified Engineers.

**ALBINA ENGINE & MACHINE WKS.**

2100 N. Albina Ave. Portland, Oregon

# One DUO

## washes 4 hands



#### Maximum in Sanitary Cleanliness

- ✓ No faucets to touch or maintain
- ✓ No possible transmission of germs
- ✓ Clean running water from sprayhead
- ✓ No water waste, — foot pedal controls water flow — no chance of leaving water running unnecessarily
- ✓ Temperature control valve to regulate water



FOOT-CONTROL

**BRADLEY WASHFOUNTAIN CO.**  
2237 W. Michigan Street  
Milwaukee 1, Wisconsin

## BRADLEY Duo Washfountains

Distributed through Plumbing Wholesalers



Like the nationally used larger Bradley Washfountains, the DUO has gained wide acceptance for—

- public buildings
- factories and mills
- plant cafeterias and laboratories
- schools
- institutions



Write for bulletin K-711.

SAFETY EQUIPMENT FOR ALL INDUSTRIES

**QUICKLY APPLIED  
OR REMOVED**

**GUARANTEED AGAINST BREAKAGE**



## IPCO M and M RAIL CLAMPS

For car stops, on loading platforms, temporary sidings, cars on grades, and traveling cranes . . . Used and recommended by leading Steel Companies, Manufacturing Plants, Mines, Grain Elevators, Cement Plants and Quarries.

WRITE FOR BULLETIN NO. 44



*Safety Equipment for all Industries*

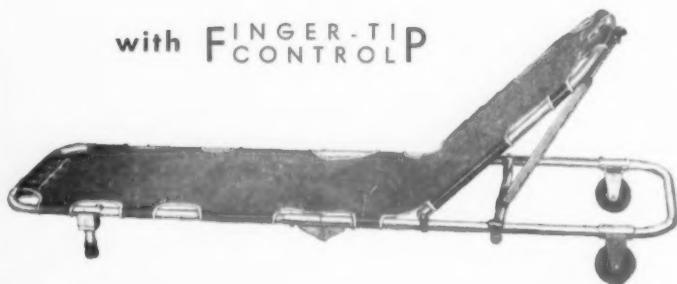
**INDUSTRIAL PRODUCTS COMPANY**

2850 N. FOURTH STREET

• PHILADELPHIA 33, PA.

## BOMGARDNER *FOLD-a-COT*

with FINGER-TIP  
CONTROL



- Automatic Locking Hinge • Snap Locked Legs
- Snap Locked Four Inch Wheels

**NO PARTS MOVE ON THE STRETCHER FRAME  
NOTHING TO WORK LOOSE, NEVER BECOMES "SHAKY"**

Write for Catalogue for Full Information

**THE BOMGARDNER MFG. CO.**

Since 1898

1384 HIRD AVE., CLEVELAND 7, OHIO

## Safety Library

—From page 53

*Physical Basis of Hearing Damage and a Tentative Damage Risk Criterion for Steady-State Noise.* By Howard C. Hardy, *AMA Archives of Industrial Health and Occupational Medicine*, Sept. 1953; p. 250.

### Nurses

*Trends in Occupational Health Massive Education.* By Mary Louise Brown, *Nursing World*, Sept. 1953; p. 24.

*Work Shop for Nursing Consultants in Occupational Health.* By Erica J. Kochler, *Nursing World*, Sept. 1953; p. 25.

### Printing Industry

*Safety in Modern Lithography.* Sept. 1953; p. 36.

### Psychology

*Three-Step Mental Health Program Guarantees New Deal for Problem Employees.* By Arthur O. England, *Factory Management and Maintenance*, Sept. 1953; p. 148.

### Radiation

*Health and Safety to Consider About in the Disposal of Radio-active Wastes.* By Forrest Western, *Industrial Hygiene Quarterly*, Sept. 1953; p. 195.

### Suggestion Systems

*A Suggestion System That Really Clicks.* *Factory Management and Maintenance*, Sept. 1953; p. 195.

### Warehouses

*Stockpiling for Destruction.* By John T. W. Babcock, *National Fire Protection Quarterly*, July 1953; p. 77.

## Calendar Contest Winners for September

First prize in the National Safety Council's Safety Calendar Contest goes this month to Miss Rose Van L. Burnham, individual member, of Willsboro, N. Y. The theme in this contest was one is not so soon healed as hurt. Miss Burnham's line was adjudged the best of all those submitted. It was:

*Preached shop safety, failed home safety test!*

Second prize went to W. C. Blackford, captain, U. S. M. C. R., of El Cajon, Calif., for this line:

*"Safe at Home" just meant ball games, he guessed.*

Third prize was awarded to John F. Grower, Alpha Portland Cement Co., Saugerties, N. Y., for the following line:

*Crouse sent his feet east and head west.*

The September limerick was:  
*It's a long but an unhappy rest  
 Andy's taking by doctor's request.  
 Right in his own home  
 He cracked his own dome*

Thirty \$5 awards were issued to:

Mrs. Floyd Cole, Consumers Power Co., Comstock, Mich.

Robert B. Campbell, industrial engineer, E. I. du Pont de Nemours & Co., Victoria, Texas

Julius Lindland, U. S. Vanadium, Bishop, Calif.

Mrs. C. H. Bowlen, Haverhill, Mass., (Individual Member)

L. J. Burke, code clerk, State of Washington, Seattle, Wash.

Mrs. H. L. Miller, secretary, Warren Petroleum Corp., Houston, Tex.

F. E. Miller, editor, Interstate Oil Pipe Line Co., Shreveport, La.

Theresa D. Janeway, secretary, Tennessee Valley Authority, Chattanooga, Tenn.

Mrs. John Hemmingsen, Suburban Electric Co., Revere, Mass.

Mrs. Frank M. Barton, Jr., Consumers Power Co., Grand Rapids, Mich.

Frank Cowan, chief engineer, Swift & Co., Perry, Ia.

A. C. Engstrom, Duluth, Missabe & Iron Range Ry., Two Harbors, Minn.

Harold J. Stanton, maintenance hand, Pittsburgh Plate Glass Co., Milwaukee, Wis.

John E. Kleinhenz, publicity director, Indianapolis Water Co., Indianapolis, Ind.

Mrs. W. S. Cutter, home safety member, Macon, Ga.

Mrs. William Dreier, U. S. Gypsum Co., Genoa, Ohio

Edith E. Morgan, Blairstown, N. J., (Individual Member)

Karl O. Duerr, International Business Machine Corp., Endicott, N. Y.

Kirsten Sorteberg, Penn-Dixie Cement Corp., Bath, Pa.

Mrs. Norman Keith, Keystone Steel & Wire Co., Peoria, Ill.

Louis E. Palfy, Minneapolis, Minn., (Individual Member)

Lillian McNamara, stenographer, New York City Transit Authority, Brooklyn, N. Y.

H. T. Onsborn, Elgin, Ill., (Individual Member)

Mrs. W. N. Sanders, U. S. Steel Corp., Fairfield, Ala.

Raymond F. Gallagher, bookkeeper, Consolidated Edison Co., Inc., New York, N. Y.

Walter E. Baldwin, foundry worker, I. I. Case Co., Rock Island, Ill.

John D. Larimer, mechanic, Columbus Packing Co., Columbus, Ohio

Ben H. Lewis, foreman, Pullman Co., St. Louis, Mo.

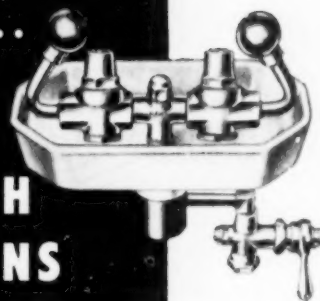
I. B. Aaron, division order clerk, Ashland Oil & Refining Co., Ashland, Ky.

Tony Mosca, Socony-Vacuum Oil Co., Inc., East Chicago, Ind.

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 Safety Engineers...



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 FOUNTAINS**



... offer a way to more adequately protect employees' eyesight and avoid costly insurance claims... by providing a safe method for workers to flush injurious chemicals and particles from their own eyes immediately—before greater damage can be done!

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**AIR BLAST VALVES**

Eject parts at each stroke of Press.  
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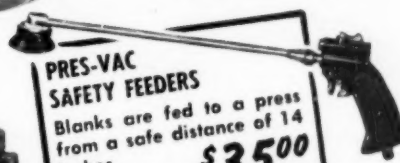
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Blanks are fed to a press from a safe distance of 14 inches.

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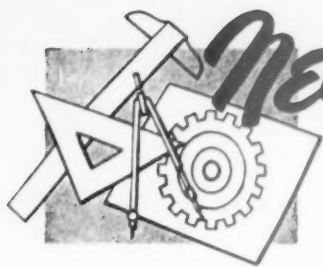


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# New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

## Press Guard

A new small power and kick press guard with operating principle based on the sweep action of an adjustable guard arm which works with the downward motion of the ram is now available. While the press is not in operation the guard arm remains out of the operator's way at the extreme left or right hand side of the press.

As soon as the pedal is pushed to operate the press the guard arm sweeps beyond the press feed area on half the downward stroke, brushing aside the operator's hands or fingers before the dies close. Write the manufacturer for full details.

Searjeant Metal Products, Inc., 80 Pittsford Road, Mendon, N. Y.

Item No. 1.

## Industrial Magnet

A new sheet fanner magnet, that can be utilized in the metal-working market has been announced. Wherever steel sheets are handled in piles, such as in stamping, punch pressing or shearing operations, it has been difficult to remove the sheets one at a time. The new sheet fanner magnet



is designed to separate oily sheets without prying, lift polished or painted sheets without scratching, prevent double feed, provide safety for operators, handle irregular or odd shapes, protect dies, and speed up production. Full details of this new device may be had by writing the manufacturer:

Eriez Mfg. Co., Erie, Pa.

Item No. 2.

## Adjustable Lighting Units

The Capri and the Catalina are new adjustable lighting units recently developed. The Capri shade is of the popular bell silhouette type while the Catalina incorporates simple straight lines. Both are finished in brushed satin aluminum



and are also available in colors on special order.

The Capri and Catalina lines are described in Bulletin No. 133. Write to: Swivelier Co., Inc., 43-34 Street, Brooklyn 32, N. Y.

Item No. 3.

## Industrial Safety Mirrors

The addition of a new 24 inch circular convex glass mirror to the Klear-Vu line has been announced. This traffic mirror is



designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances and exits present

a serious problem because of traffic accidents. Installed in these locations at a height of 8 to 10 feet, this mirror clearly reflects for a considerable distance the movement of oncoming floor traffic from opposite directions. Information on these safety mirrors is available from:

Lester L. Brossard Co., 540 N. Michigan Ave., Chicago 11.

Item No. 4.

## Fire Retardant Paint

Fyr-Kote oil base fire retardant interior flat wall paint has been tested and listed by Underwriters' Laboratories and can be applied as easily and economically as ordinary paint. For details write:

Fyr-Kote Co., Div. of Morris Paint & Varnish Co., 27th & Douglas St., Omaha, Neb.

Item No. 5.

## Safety Cans

A new color, flame red, now features Justrite safety cans in all sizes. Factors in the selection of the new color were instant identification, high visibility and



sharp contrast to fire-fighting apparatus. The flame red color complies with the new Safety Color Code. Further information may be obtained by writing direct to:

Justrite Mfg. Co., 2061 N. Southport Ave., Chicago.

Item No. 6.

## Locking Wrench

The new Utica No. 92 locking wrench works like the ordinary adjustable wrench. However, the jaws can be locked rigid at



# New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.



any setting. It acts as a vise-wrench exerting a 100-lb. grip on the bolt or machine component to which it is fastened. Thus one wrench can fill the job of many wrenches.

Though it looks much like a standard

switch from "normal" to "bell silence," the alarm stops ringing and a red light on

will not start. Details are available by writing the manufacturer:

Hannifin Corp., 1142 S. Kilbourn Ave., Chicago.

Item No. 9.

## Safety Snap

The new Miller safety snap with two life-saving features, was developed for men engaged in work requiring safety snaps.



This snap eliminates the hazards of "roll-outs" and "hang-ups" without special operations or extra gadgets. For details write: Miller Equipment Co., Inc., Franklin, Pa. Item No. 10.

## Explosion-Proof Lighting Fixture

This new type explosion-proof and dust-tight fluorescent lighting fixture is for use wherever the presence of explosive gases or vapors or combustible dusts requires



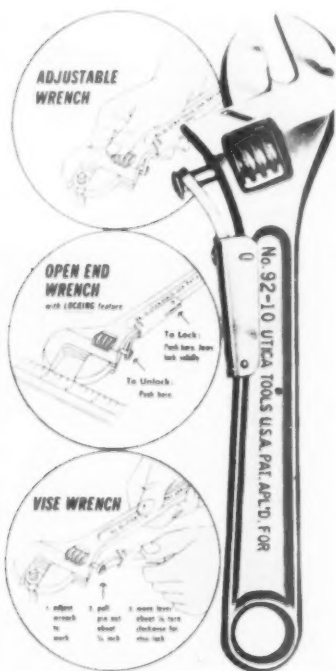
safe, practical lighting. Each tube is housed in an individual tube of heat-resisting glass. The tube ends are reversed, tapered and sealed into cast aluminum housings which also contain the lamp receptacles. Full details are available from the manufacturer:

Crouse-Hinds Co., Syracuse, N. Y.

Item No. 11.

## Concrete Floor Sealer

A new, easy-to-apply sealer for newly-laid and repaired concrete floors is announced. Serving as a protective coating to prevent dusting and spalling, the new



Utica adjustable wrench, there is one difference, it has a lever about three inches long which snaps over the handle. This lever, which operates on the knurl, controls the jaw locking and unlocking action. For complete details write:

Utica Drop Forge & Tool Corp., Utica 4, N. Y.

Item No. 7.

## Power Failure Alarm

A new power failure warning alarm has been developed by Walter Kidde & Co., Inc., for use in conjunction with its industrial smoke detection equipment. The new addition means that should AC power fail and the job of automatic fire detection halts, the unprotected condition is revealed immediately. The six-volt battery-powered device causes an audible alarm to sound. By throwing a manual



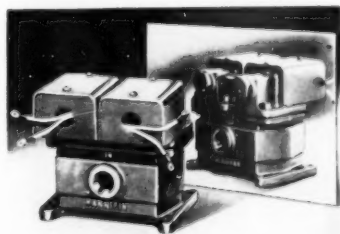
the panel flashes on indicating the derangement. When normal power is restored and smoke detection continues, the red light goes out and the alarm bell rings again. It can be silenced by throwing the manual switch to "normal." Address inquiries to:

Walter Kidde & Co., Inc., 1020 Main St., Belleville, N. J.

Item No. 8.

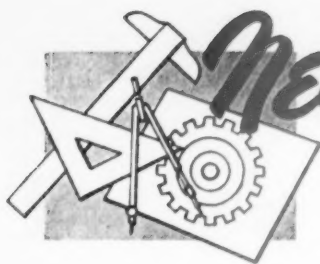
## Air Control Valve

A special air-control valve which, the manufacturer asserts, makes practically impossible "repeats" due to valve failure on mechanical presses controlled by air-operated clutches and brakes is now on the market. The new valve is a dual 3-way valve—two 3-way valves in parallel in one compact body. Both valves must operate



to start the press, but if for any reason only one valve reverses, the unit "fails safe" and the press stops.

The new valve is called the P-M Series BB-5 and is offered only in 3/4 inch I.P.S. The two solenoids in this dual valve are connected in parallel in the electric circuit of the press. The two pilot sections are interlocked pneumatically so that, if either solenoid fails to operate, the valve will not build up enough pilot pressure to operate either main valve and the press



# New safety equipment for industry

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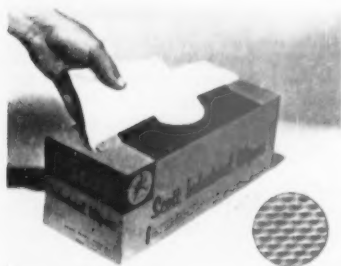
sealer permits residual moisture to rise out of the new concrete. No etching is required, the sealer can be applied with good results without prior acid treatments. A single coat is all that is required to protect most new floors. For complete details write:

West Disinfecting Co., 42-16 West St., Long Island City, N. Y.

Item No. 12.

## Industrial Wipers

Designed to meet the general wiping needs of industry, a new industrial wiper has just been developed and placed on the market. Made of paper, it is highly absorbent, versatile, and easily disposable. An unusual feature is its surface. Each wiper consists of two "Perf-Embossed"



sheets which, through a special process, are welded together for extra durability, giving thorough cleaning action and maximum dirt retention. Chemical treatment also creates all important wet strength.

The wiper is designed to give efficient performance in the complete range of industrial wiping from heavy machine to precision work. Address the manufacturer for full details:

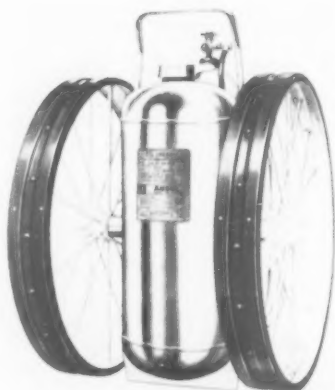
Scott Paper Co., Chester, Pa.

Item No. 11.

## New Fire Equipment

New nozzle and gas tube design and stepped-up rate of flow have increased the fire fighting effectiveness of Ansul wheeled extinguishers.

The 150-B and 350-B replace the company's A-models. Using dry chemical as extinguishing agent, these wheeled extinguishers are now protecting steel, chemical, petroleum, aviation, and other industries. Dry chemical flow has been increased



30 per cent by re-designing the gas tube in the dry chemical chamber, permitting efficient use of larger nozzle orifices. Full details are available by writing:

Ansul Chemical Co., Marinette, Wis.

Item No. 14.

## Dust Measuring Instrument

Mine Safety Appliances Co. has been named exclusive distributor in the United States for a line of dust-measuring instruments manufactured by C. F. Casella & Co., Ltd., London.

The instruments now being introduced



for American users include the "Cascade Impactor" for discriminatory collection of air-borne dusts by particle size; "settlement dust counter" for accurate collection of dust particles of air-borne bacteria; "thermal precipitator," for sampling a wide variety of smoke, fumes and dusts; and the "jet dust counter" for rapid dust

sampling without interruption of operations.

The cascade impactor operates on a principle involving low jet speeds in collecting either solid or liquid particles. Detailed information on the MSA-Casella instruments is available upon request to:

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa.

Item No. 13.

## Protectivest

This new garment brings safety to the operator of high speed cutting and milling machines. Metal fragments and particles, sometimes projected with terrific force



from these machines, are stopped by the Protectivest. Under actual tests the guard stopped a .38 caliber bullet fired from a distance of only 8 feet. It is made of laminated glass-cloth, is light in weight and  $\frac{1}{8}$  inch thick. Further information may be obtained by writing:

B. F. McDonald Co., 5721 W. 96th St., Los Angeles 45, Calif.

Item No. 16.

## Combustion Control Unit

This new control unit is to provide protection against flame failure explosions together with programming to meet any application requirements for commercial-industrial gas, oil, or combination gas/oil burners.

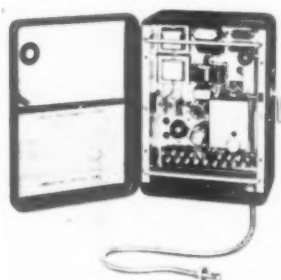
Employing the flame-sensitive "Firetron" cell, it shuts off fuel in 2 to 4 seconds after a burner flame goes out, thus reducing the explosion hazard. It offers simpli-

# New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.



fied specification, installation and maintenance by providing a single standard package unit with complete automatic startup,



operating, and shutdown control for any type of burner and a selection of programming times for three types of ignition operation to comply with Factory Mutual Laboratories' requirements. Complete specifications, wiring diagrams, and programming sequences are shown in Installation Bulletin CP522 which may be had by writing:

Combustion Control Corp., Dept. N, 718 Beacon St., Boston.

Item No. 17.

## Dip Tank

A new approved foot treadle fire preventive dip tank for washing castings, parts, assemblies and similar moderate size production pieces has been developed by Protectoseal Co. The tank is waist high for convenient use and because of its



fire preventive construction, it may be placed safely beside the worker or any

other location in the plant where it is most convenient. It is made of heavy terne plate electrically seam-welded into a one-piece unit and is mounted on a rugged, well-braced angle iron frame. The hinged cover is self-closing and the tank remains covered to protect the cleansing solvent from fire or contamination, and to minimize loss by evaporation. It can only be used while the foot is on the treadle; when pressure is relieved the cover closes quickly. Address your inquiries for information to the manufacturer:

Protectoseal Co., 1920 S. Warren Ave., Chicago.

Item No. 18.

## Portable Ventilators

Portable air movers used by the Paint Department of Dravo Corp. have proved to be versatile, and timesaving in providing on-the-spot ventilation in interior painting of barges, towboats, and rooms or compartments ashore.

Dust-laden air is removed from compartments during power brushing prior to



painting. The devices, known officially as MSA-Lamb air-movers are also in frequent use for exhausting noxious fumes generated when preservatives are applied to machinery prior to storage, and for interior paint-drying. The air mover is horn-shaped, with a bell-formed base. Compressed air introduced through the annular orifice in the base is discharged at high velocity from the outlet horn, inducing air movement in large volume. Those used by

Dravo have a rated discharge capacity of 3150 cubic feet per minute, at 70-lb. compressed air pressure. For full details on these air movers write:

Mine Safety Appliances Co., Pittsburgh, Pa.

Item No. 19.

## Hand Magnetool

A new 70-Series permanent-magnetic hand Magnetool for picking up small parts, metal scrap, nails, tacks, etc. has been announced. Improvements made over

### PICK-UP and RELEASE



the Model S which this series replaces include elimination of the projecting shelf, provides greater capacity, easier burrowing into leads, and increased durability. Address your inquiries to:

Multifinish Mfg. Co., 2114 Monroe St., Detroit, Mich.

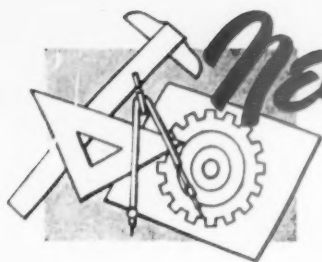
Item No. 20.

## Fire Blanket

The Halco No-Flame fire blanket is fireproofed and treated with a non-toxic



fungicide which has been proved negative



# New safety equipment for industry

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for dermatitis and sensitive skin according to the manufacturer. Even when the blanket has to be immersed it does not lose its fungicide properties. The blanket measuring 62" x 82" is encased in a heavy gauge steel cabinet, finished in red enamel and has a full length continuous hinge to insure simple opening. Two lingers are placed on top of the cabinet for easy mounting. For details write:

A. E. Halperin Co., Inc., 75 Northampton St., Boston, Mass.  
Item No. 21.

## News Items

Charles H. Myers has been appointed assistant to the manager of the Mining Department of Mine Safety Appliances Co., Pittsburgh. Mr. Myers, who has been with the company since 1939, formerly was a mining sales engineer. He is a graduate of The Pennsylvania State College with an engineering degree.

To replace Mr. Myers in the Fairmont territory, the company has appointed M. E. Condit. His headquarters will be in Fairmont. Mr. Condit is a mechanical engineering graduate of Carnegie Institute of Technology. He joined Mine Safety Appliances Co. in 1949. Before his transfer to Fairmont, Mr. Condit was stationed in MSA's Pottsville, Pa., mining sales office.

The new MSA sales engineer in Pottsville is W. C. Endean, who has been with the company's International Department. Mr. Endean, a graduate of Pennsylvania State College, joined MSA in 1942.

The Diversey Corp. has announced the purchase of the Selcon Engineering and Chemical Co. of Chippewa Falls, Wis., manufacturers of automatic solution controls and sanitation chemicals. In addition to its Chicago plants, Diversey now has

factories in Newark, N. J.; South Gate, Calif.; Port Credit, Ont., Canada, and Honolulu, Hawaii.

\* \* \* \*

C. Victor Mars has been named vice-president in charge of research and development for Ansul Chemical Co., Marinette, Wis. Mr. Mars' 22-year career with



Ansul includes service as a research chemist, refrigeration and industrial chemicals salesman, manager of product development and director of research and development.

A. J. Whitford, president of the First National Bank of Marinette, Wis., has been elected chairman of the board of Ansul Chemical Co. He succeeds Harvey V. Higley, who recently was appointed by President Eisenhower to serve as director of the Veterans Administration.

Doubling its warehouse capacity, The Ansul Chemical Co. has moved its Buffalo office to 902 Kenmore Avenue. Lester J. Wiechers, district manager and Omar Lane represent Ansul in Buffalo and western New York.

Jarvis Gafford has been appointed district manager for the Milwaukee territory of Hillyard Chemical Co., manufacturers of floor treatment products. Mr. Gafford, a trained floor expert, joined the Hillyard staff in the late thirties. Formerly with



the company's Chicago office, he has served the schools, hospitals, commercial and industrial accounts of the Chicago area for the past 10 years. He will be located in Room 208, 312 E. Wisconsin Ave., Milwaukee.

\* \* \* \*

The trouble with the world is that the stupid are cocksure and the intelligent full of doubt.

Problems are sent to make us think — not to make us worry.

The man who fears he will do more than his salary calls for will never have much salary to call for.

## NATIONAL SAFETY NEWS

425 N. Michigan Ave., Chicago 11, Ill.

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NOVEMBER, 1953

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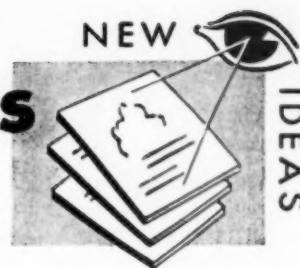
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# Trade publications

## in the safety field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



1. "Four Ways to Get Workers to Buy Safety Shoes": Literature gives information on how to get workers to buy safety shoes. Also gives Tom McAn's 4-way employee purchase plan, plus descriptions of the full line of safety shoes. Thom McAn.

2. Safety Goggles: Descriptive literature features 4 models of Penontic "707 Series" plastic frame spectacle type safety goggles. This new series offers a choice of: spatula or cable type temples; adjustable rocker or regular nose pads; and contour-fitted side shields. Pennsylvania Optical Co.

3. Illuminated Display Board: Literature on a changeable letter illuminated display board that is easy to read, change, used to display all types of safety, plant activities and other messages. A. C. Davenport & Son, Inc.

4. Safety Surfacing: Catalog illustrating products for every safety-surfacing need. Tread rubber mats, frictioned rubber runners and mats, safety treads, link mats, rubber flooring, corrugated matting, shower stall mats, desk chair mats are illustrated. Melflex Products Co., Inc.

5. Hand Cleaners: A folder describing a line of hand cleansers for use in plant and office washrooms, its qualities and quantities in which each is packed. Mione Mfg. Co.

6. Face and Eye Shields: Literature gives information and prices on company's complete line of face and eye shields. New feature is the Saf-I-Spectacle which is 30% less weight, has snap-on side shields, dual-purpose frames, and optilite "A" plastic lens. United States Safety Service Co.

7. Integral Dust Collectors: Literature gives information on dust collectors that have such advantages as high collecting efficiency, constant pressure drop, no fire hazard, long life, self-cleaning and easy maintenance. Aerotec Corp.

8. Safety Clothing for Industry: A booklet illustrating various items of safety clothing to help protect the worker in industry. Range includes gloves, mittens and arm protectors, asbestos clothing, leggings and welder's equipment. Industrial Gloves Co.

9. "Cutting Oil Sanitation": A booklet on coolants, their sanitation, health hazards, handling, and the results of dermatitis from their use. It explains how to handle and prevent these problems. C. B. Dolge Co.

10. "Miller Safety Products": New colorful catalog showing complete line of company's safety products. Shown are: electricians tool belts, window belts for window washers, rubber glove bags, screw drivers, plier grips, leather pockets for holding tools, etc. Miller Equipment Co.

11. Soap and Soap Equipment: A booklet that covers soap and soap equipment for industrial washrooms. Soaps for every requirement, apparatus, equipment, dispensers, paper towels, and cabinets are described. West Disinfecting Co.

12. Group Washroom Equipment: Illustrated catalog includes helpful layout suggestions, along with other information about different types of washroom fountains and stall showers. Describes efficiency and convenience, economy, and ease of installation. Bradley Washfountain Co.

13. Alloy Steel Chain: New booklet containing information on alloy steel chains. Lists many different industries using alloy steel chains, and shows how comparison, experience, and costs proved superiority. S. G. Taylor Chain Co.

14. Mechanical Hearing Protector: Literature describes the Lee Sonic ear-valv which is a mechanical hearing protector. The inner valve actuated by sound pressure automatically controls sound entering ear; removes harm from noise without interfering with conversation or normal air circulation. Scientific Industrial Supply Co.

15. "Wire Rope Clamp and Thimble": Illustrated brochure with description and dimensions of steel cast clamps and thimbles designed to utilize load pressure while eliminating shear on bolts. Newman Mfg. & Sales Co.

16. "Traffic Never Stops": Folder announces "Perma-Mix" for floor resurfacing and patching, which can be applied to wet or dry surfaces in any weather, and which eliminates delays due to mixing and setting. Permax Corp.

17. Hi-Lift Portable Work Platform: Complete information on Hi-Lift extension scaffold and portable loading platform for overhead maintenance. Atlas Industrial Corp.

18. Safety Shoes: Pamphlet illustrates and describes company's line of Wingard safety toe "dress" and work shoes for men. Holland-Racine Shoes, Inc.

19. When Fire Strikes: Booklet presents a survey of approved fire protection systems for making buildings fire-safe for human and material inhabitants. Also special hazards protection fully covered. Grinnell Co., Inc.

20. "Mr. Higby Learned About Floor Safety the Hard Way": A booklet prepared for those concerned with safety and maintenance of polished floors. It shows why floors need waxing, why they are slippery and how they can be polished and still be safe. Walter G. Legge Co., Inc.

21. Safety Signs: Standard signs for all requirements are shown in this catalog. Among those pictured are caution signs, danger signs, fire prevention signs, and miscellaneous safety signs. Stock wordings, sizes and prices are given. Standard Signs, Inc.

## NATIONAL SAFETY NEWS

425 N. MICHIGAN AVE., CHICAGO 11, ILLINOIS

NOVEMBER, 1953

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## Advertisers' Index

A		M	
Aerotec Corp.	88	Maico Hearing Aid Co.	144
Alan Wood Steel Co.	135	Marsh & McLennan Inc.	172
Albina Engine & Machine Works, Inc.	173	Masury-Young Co.	14
Aljay Manufacturing Co., Inc.	155	McDonald, B. F., Co.	76
American Abrasive Metals Co.	140	Medical Supply Co.	8
American Chain & Cable Co., Inc.	66-67	Mine Safety Appliance Co.	I.E.C.
American Optical Co.	B.C.	Modern Machine Tool Co.	163
American Tel. & Tel. Co.	49	Moore, John B., Corp.	160
Ansul Chemical Co.	43	N	
Associated Bag & Apron Co.	182	National Safety Council	97 to 132-166-167-168
Award Incentives, Inc.	92	Natural Gas Odorizing Co.	81
B		New York Belting & Packing Co.	55
Bashlin, W. M. Co.	153	O	
Bausch & Lomb Optical Co.	83	Onox, Inc.	156
Bomgardner Mfg. Co.	174	Osborne Mfg. Co.	182
Bradley Washfountain Co.	173	P	
Bullard, E. D., Co.	145-150	Packwood, G. H. Mfg. Co.	71
Buffalo Fire Appliance Corp.	7	Patent Scaffolding Co., Inc.	151
C		Pennsylvania Optical Co.	13
Calumet Steel Castings Corp.	171	Permamix Corp.	171
Canfield Oil Co.	78	Pioneer Rubber Co.	170
Chic Maid Hat Mfg. Co., Inc.	88	Pittsburgh Plate Glass Co.	165
Chicago Eye Shield Co.	I.B.C.	Plax Corp.	95
Chicago Watchlock Co.	154	Prairie State Products Co.	146
Columbus-McKinnon Chain Corp.	139	Pyle-National Co.	162
Coppus Engineering Co.	5	R	
Cotterman, I. D.	92	Randles Mfg. Co.	160
C-O-Two Fire Equipment Co.	93	Randolph Laboratories, Inc.	4-137
Cover, H. S.	169	Reece Wooden Sole Shoe Co.	163
Cunningham, M. E. Co.	170	Rockwood Sprinkler Co.	77
D		Ruemelin Mfg. Co.	172
Davenport, A. C., & Son, Inc.	157	S	
Dockson Corp.	160-161	Safety First Supply Co.	82
Dolge, C. B., Co.	86	Safety Tower Ladder Co.	94
Dow-Corning Corp.	91	Sawyer, H. W. & Son Co.	80
E		Schrader's, A., Son	11
Eagle-Picher Sales Co.	143	Scientific Industrial Supply Co.	94-144
Elizabeth Iron Works, Inc.	164	Scott Aviation Corp.	53
Ellwood Safety Appliance Co.	152	Scott Paper Co.	65
Employers Mutuals of Wausau	133	Sellstrom Mfg. Co.	148
Eriez Mfg. Co.	84	Standard Industrial Products Co.	151
Eshelman Co.	150	Standard Safety Equip. Co.	153-157
F		Stonehouse Signs, Inc.	87
Federal Enterprises, Inc.	10	Stop-Fire, Inc.	15
Finnell Systems, Inc.	6	T	
G		Tammis Industries, Inc.	161
Gro-Cord Rubber Co.	45	Taylor, Halsey W., Co.	162
H		Taylor, S. G., Chain Co.	142
Halperin, A. E., Co., Inc.	86	Tokheim Oil Tank & Pump Co.	141
Haws Drinking Faucet Co.	175	Torit Mfg. Co.	158
Hillyard Chemical Co.	149	Tower, A. J., Co.	90
Hood Rubber Co.	79	Trumbull Mfg. Co.	156
Houghton, E. F., & Co.	59	U	
Hygiene Research Inc.	79-149	Union Wire Rope Corp.	69
Hynson Westcott & Dunning, Inc.	63	U. S. Envelope Co.	147
Hy-Test Div., International Shoe Co.	16	U. S. Safety Service Co.	9
I		U. S. Rubber Co.	72-73
Industrial Gloves Co.	169	U. S. Treasury	96
Industrial Products Co.	174	Universal Mfg. Co.	90
Institute of Industrial Launderers	150	V	
Iron Age Div., H. Childs & Co.	57	Vestal, Inc.	146
J		W	
Jones, C. Walker, Co.	138	Wash-Rite Co., Inc.	164
Joy Manufacturing Co.	12	Watchemoket Optical Co.	75
K		Welsh Mfg. Co.	51
Kidde, Walter, & Co., Inc.	61	Wiesman Mfg. Co.	159
Kimberly-Clark Corp.	153	Wilkins Co., Inc.	41
Klein, Mathias & Sons	136	Williams Jewelry & Mfg. Co.	84
L		Willson Products, Inc.	1
Laughlin, Thomas Co.	134	Wyandotte Chemicals Corp.	89
Legge, Walter G., Co., Inc.	85		
Lehigh Safety Shoe Co.	3		
Lichtman, J. & Sons	152		
Littell, F. J., Machine Co.	175		



## Metal Ful-Vue Safety Glasses



Eye Protection



### FROM ANY ANGLE... Good Looking Protection!



Yes, from any angle . . . safety, wide vision, comfort, appearance and its *many* uses, the AO F4100 Series Ful-Vue safety eyewear is outstanding.

These many uses include:



#### Quick Facts

**1** Frontal protection against flying particles on machine and hand tool operations and woodworking (Clear 6 Curve Super Armorplate Lenses *without* Side Shields)

**2** Frontal and side protection against flying particles when chipping, grinding, polishing, riveting, spot welding, hand nailing . . . on machine, hand tool and woodworking operations . . . when operating tumblers, sand and shot blast machines (Clear 6 Curve Super Armorplate Lenses *with* Side Shields)

**3** Glare, ultraviolet, infrared and impact protection for electric

welders (worn under helmet), welders' helpers and others exposed to welding. Also for railroad transportation men, truck and bus drivers and others who need protection from wind, dust, cinders, flying particles and glare of reflected sunlight, heat treating, furnace tending and similar exposures. (Calobar Lenses)

**EYEWIRE** — Lightweight and durable. Deep grooves hold lenses securely.

**ENDPIECE** — Wide bearing surface makes for strength and durability.

**TEMPLES** — Lightweight, easily-adjusted, perspiration proof.

**BRIDGE** — Double-braced.

**SIDE SHIELDS** — Available with or without side shields that are easy to replace because of one-piece hinger and eyewire.

YOUR NEAREST AO SAFETY  
PRODUCTS REPRESENTATIVE  
CAN SUPPLY YOU

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SAFETY PRODUCTS DIVISION

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